

# DEVELOPMENT & IMPLEMENTATION OF COURSES FOR THEATRE TECHNICIANS & STAGE MANAGERS

SCENTEC530810-TEMPUS-1-2012-1-RS-TEMPUS-JPHES

Praktikum za interdisciplinarno obrazovanje  
na kursevima iz oblasti scenskog dizajna





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**“DEVELOPMENT & IMPLEMENTATION OF COURSES FOR  
THEATRE TECHNICIANS & STAGE MANAGERS“**

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na kursevima iz oblasti scenskog dizajna  
-tehnika pozornice, svetla i zvuka-**



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## UVOD

„Praktikum za interdisciplinarno obrazovanje na kursevima iz oblasti scenskog dizajna“ jedan je od ishoda projekta koji je u okviru programa Tempus pod nazivom „ScenTec: Razvoj i primena kurseva za pozorišne tehničare i menadžere pozornice“ (Development & Implementation of Courses for Theatre Technicians & Stage Managers)<sup>1</sup> realizovan u periodu od 2012. do 2016. godine u Novom Sadu (na Fakultetu tehničkih nauka, Akademiji umetnosti i u Srpskom narodnom pozorištu), Beogradu (na Fakultetu dramskih umetnosti), Užicu (u Narodnom pozorištu), Tuzli (na Akademiji umjetnosti i u Narodnom pozorištu), Banjaluci (na Arhitektonsko-građevinsko-geodetskom fakultetu i Narodnom pozorištu), Briselu (Erasmus Hogeschool), Štokholmu (Stockholm Academy of Dramatic Arts), Kardifu (Royal Welsh College of Music and Drama) i Sofiji (National Academy of Arts, Sofia), a koordiniran u Centru za scenski dizajn, arhitekturu i tehnologiju (Scen) Fakulteta tehničkih nauka Univerziteta u Novom Sadu, koji je i OISTAT centar za Srbiju.

Projekat ScenTec oslonjen je na dva naučno-istraživačka projekta koji su realizovani pod pokroviteljstvom Ministarstva prosvete i nauke Republike Srbije, a u okviru kojih su Fakultet tehničkih nauka i Akademija umetnosti Univerziteta u Novom Sadu, kao i Fakultet dramskih umetnosti Univerziteta umetnosti u Beogradu sarađivali istražujući objekte za scenske događaje (pozorišta i domove kulture), kao i institucije koje u ovim objektima deluju.<sup>2</sup> Ovi projekti su rezultirali bogatom građom sistematizovanom u dve baze podataka i dve monografske publikacije.<sup>3</sup> Istraživanje je potvrdilo polazne pretpostavke koje su govorile o nezadovoljavajućem nivou obrazovanja, formalnog i suštinskog, kojim raspolaze velika većina zaposlenih u tehničkim sektorima pozorišta i institucija kulture u Srbiji. Ranija istraživanja govorila su u prilog mišljenju da u regionu vlada slična ili identična situacija, koja je rezultat činjenice da još uvek nisu razvijeni nastavni i studijski programi u oblasti scenske tehnike, tehničke produkcije i tehničkog menadžmenta neophodni za kvalitetan i pouzdan rad u savremenim uslovima. Konkretno, osnovne akademske studije Scenska arhitektura, tehnika i dizajn koje su u realizaciji na Departmanu za arhitekturu i urbanizam Fakulteta tehničkih nauka Univerziteta u Novom Sadu od 2013. godine, prvi je studijski program u regionu namenjen konkretno izučavanju prostora, tehnike i tehnologije scenskih događaja. Akademske studije koje pripadaju oblasti scenskog dizajna prethodno su, u polju umetnosti, uspostavljene na Fakultetu dramskih umetnosti Univerziteta umetnosti u Beogradu, kao i na Akademiji umetnosti Univerziteta u Novom Sadu, a u domenu dizajna zvuka i svetla.

<sup>1</sup> Više o ovom projektu videti na internet stranici: <http://www.scentec.uns.ac.rs>

<sup>2</sup> Više o ovim projektima videti na internet stranici: [http://www.scen.uns.ac.rs/?page\\_id=49](http://www.scen.uns.ac.rs/?page_id=49)

<sup>3</sup> „Arhitektura scenskih objekata u Republici Srbiji“, FTN, Novi Sad, 2011, i „Arhitektura domova kulture u Republici Srbije“, FTN, Novi Sad, 2014.



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Aktivno učešće Srbije (najpre kao SR Jugoslavije) u OISTAT-u, međunarodnoj asocijaciji za scenografiju, pozorišnu arhitekturu i tehnologiju, koje kontinuirano traje od 1995. godine, stvorilo je mogućnost saradnje sa istaknutim stručnjacima i nastavnicima iz ovih oblasti. Neki od najznačajnijih svetskih autoriteta (Majkl Remzor, Pamela Hauard, Tomaš Žiška, Meta Hočevar, Tomi Janežič...) u oblasti scenskog dizajna i scenskog prostora bili su uključeni u osnivanje i rad studija scenskog dizajna u Beogradu i Novom Sadu, pa je oslonac na OISTAT bio prirodan i za projekat ScenTec.

Ideja o projektu formirana je u skladu sa namerom da se u zajedničku ravan postavi realna situacija u profesionalnoj produkciji sa trenutnim i planiranim akademskim programima, da se ispitaju potencijali povezivanja ove dve sfere, kao i da bude uspostavljena platforma za kreiranje malih i srednjih obrazovnih formata koji će biti korisni neposredno, tehničarima u institucijama kulture, onima koji se za to pripremaju kroz studije, jednako kao i onima koji to tek žele da postanu. Jedna od važnih pretpostavki ovog programa je želja za artikulacijom celovitog sistema obrazovanja koji će činiti različiti formati, usklađeni među sobom i akreditovani kao deo zvaničnog sistema edukacije, sa uverenjem da tek spoj između formalnog i suštinskog obrazovanja može doneti stvarne promene i napredak u profesionalnom radu, kao i u shvatanju značaja, prirode i uslovnosti tog rada. Ovde je posebna pažnja posvećena ustanavljanju i primeni propisa, standarda i procedura rada u pozorišnim i drugim institucijama kulture, u skladu sa praksom i iskustvima zemalja Evropske unije čiji eksperti učestvuju u projektu.

Projekat ScenTec, dakle, predstavlja početni impuls u građenju celovite, izvodljive i održive strategije unapređenja rada u tehničkoj produkciji scenskih događaja, kao i tehničkom radu pozorišta i institucija kulture uopšte kroz formalno obrazovanje, shvaćeno kao složen i otvoren sistem, u najširem smislu reči. U tom kontekstu ovaj praktikum treba shvatiti kao jedan od mogućih oslonaca.



## POJMOVNIK<sup>4</sup>

**Celoživotno učenje (Lifelong Learning)** podrazumeva povezivanje formalnog, neformalnog i informalnog učenja, kako bi se omogućilo stalno unapređenje kvaliteta življenja. [5]

**Evropski okvir kvalifikacija za celoživotno učenje (European Qualifications Framework for Lifelong Learning – EQF)** jeste instrument uspostavljanja nivoa kvalifikacija organizovan tako da deluje kao sredstvo prepoznavanja i razumevanja kvalifikacija između državnih kvalifikacijskih okvira. [4, 5]

**Formalno obrazovanje (Formal Education)** podrazumeva učenje koje usmerava nastavnik ili instruktor, stiče se u obrazovnim ustanovama, a prema nastavnim planovima i programima koje odobravaju nadležne obrazovne vlasti, i završava se dobijanjem odgovarajuće javne isprave. [5]

**Informalno obrazovanje (Informal Learning)** je spontano učenje i sticanje znanja i veština u svakodnevnim aktivnostima. [5]

**Ishodi učenja (Learning outcomes)** opisuju šta učenik/student/osoba koja uči zna, razume i može da obavlja na osnovu završenog procesa učenja, definisanog obrazovanjem, veštinama i kompetencijom. [5]

**Kompetencije (Competences)** označavaju sposobnost primene znanja, veština i personalnih, socijalnih i metodičkih sposobnosti na radnom mestu ili tokom kursa, kao i u privatnom i profesionalnom razvoju. U kontekstu Evropskog okvira kvalifikacija, kompetencije su opisane kao odgovornost i samostalnost. [4, 5]

**Kvalifikacija (Qualification)** je formalni naziv za rezultat procesa procene i validacije, koji se dobije kad kompetentno telo odredi da je pojedinac ostvario ishode učenja prema predviđenim standardima. [5]

**Neformalno obrazovanje (Nonformal Education/Learning)** jeste organizovan proces učenja i obrazovanja usmeren ka usavršavanju, specijalizaciji i dopunjavanju znanja, veština i kompetencija prema posebnim programima koji izvode organizatori obrazovanja i obuke (redovne škole, centri za obuku, kompanije, agencije i slično). [5]

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4 Čitaoci treba da znaju da postoje razlike u definicijama određenih ključnih termina koji se nalaze u brojnim referentnim publikacijama evropskog prostora visokog obrazovanja, uključujući EQF, EHEA, ECTS vodič, ESG.



Priznavanje prethodnog učenja podrazumeva validaciju ishoda učenja, bez obzira na to je li u pitanju formalno ili neformalno i informalno učenje, stečeno pre zahteva validacije. [6]

Sektor podrazumeva profesionalne aktivnosti grupisane na osnovu njihove glavne ekonomske funkcije, proizvoda, usluge ili tehnologije. [4]

Standard kvalifikacije (Qualification Standard) jeste standard koji određuje uslove za sticanje javne isprave o određenoj kvalifikaciji. Uključuje sve podatke potrebne za određivanje nivoa, kreditnih bodova i profila kvalifikacije i podatke potrebne za pouzdanost kvaliteta standarda kvalifikacije. [5]

Standard zanimanja (Occupational Standard) jeste popis svih poslova koje pojedinac obavlja u određenom zanimanju i popis kompetencija potrebnih za njihovo uspešno obavljanje. [5]

Veštine (Skills) predstavljaju sposobnost primene znanja i korišćenja principa „znati kako“ da se određeni zadatak obavi, a pomaže pri rešavanju problema. Veštine mogu biti kognitivne (uključuju korišćenje logičkog, intuitivnog i kreativnog razmišljanja), praktične (podrazumevaju fizičku spretnost i korišćenje metoda, materijala, sprava i instrumenata) i socijalne (veštine komuniciranja i saradnje, emocionalna inteligencija i druge). [4, 5]

Znanje (Knowledge) jeste skup činjenica, principa, teorija i prakse koji se odnose na područja rada ili izučavanja, a nastao kao rezultat usvajanja informacija u procesu učenja. U kontekstu Evropskog okvira kvalifikacija za celoživotno učenje, znanje se opisuje kao teorijsko i/ili činjenično. [4, 5]



## POGLAVLJE I

### Opis projekta

Međunarodni Tempus projekat Development & Implementation of Courses for Theatre Technicians & Stage Managers – SCENTEC razvijen je nakon trogodišnjeg istraživanja u okviru nacionalnog projekta Ministarstva za nauku i tehnološki razvoj Republike Srbije „Tehničko-tehnološko stanje i potencijali arhitektonskih objekata za scenske događaje u Republici Srbiji“. Kako je u toku navedenog istraživanja utvrđeno da pozorišni tehničari i scenski menadžeri koji rade u brojnim ustanovama kulture u Srbiji i Bosni i Hercegovini nisu adekvatno obučeni [1], zakljueno je da treba definisati kurseve orientisane ka usavršavanju pozorišnih radnika, ali i drugih stručnjaka u oblastima scenske tehnike, tehnologije, arhitekture i dizajna, kao i tehničke produkcije. Za razliku od studijskih programa, koji su tokom nekoliko proteklih godina akreditovani na univerzitetima u Srbiji, treba da budu akreditovani ili su u fazi akreditacije u Bosni i Hercegovini, a na kojima se izučavaju teme iz oblasti scenske tehnike i dizajna, ovi kursevi su predviđeni prvenstveno za zaposlene pozorišne tehničare koji nisu u mogućnosti da upišu i završe redovne akademske studije, posebno imajući u vidu njihovu starosnu dob i prethodno iskustvo zaposlenih scenskih radnika u našoj zemlji, ali i u regionu.

Očekuje se da na ovim kursevima u znatnom broju učestvuju i drugi zainteresovani koji rade u oblasti pozorišne/scenske tehnike, mlađi koji su završili srednju školu, ne žele da studiraju, a interesuje ih usavršavanje u ovoj oblasti, kao i oni akademski obrazovani koji žele da se doškoluju u određenoj oblasti scenske tehnike i dizajna.

Silabusi za različite vrste i nivoje kurseva definisani su nakon opsežne analize postojećeg stanja, strukture i organizacije tehničkih sektora u pozorištima, kompetencija zaposlenih i formiranja liste neophodnih znanja, veština i kompetencija na regionalnom nivou. Na osnovu navedenog istraživanja napravljena je detaljna lista kompetencija potrebnih za rad u različitim oblastima scenske tehnike i dizajna, kao polazna osnova za osmišljavanje silabusa različitih tipova kurseva (videti Poglavlje II).



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Ovaj projekat je bio usmeren ka uspostavljanju interdisciplinarnih kurseva koji će spajati znanja iz oblasti umetnosti i tehnologije tako da omogući učesnicima da steknu odgovarajuće kompetencije primenjive u profesionalnom životu i radu. Implementacijom tih kurseva poboljšali bi se kreativni, tehnički i bezbednosni standardi rada u pozorišnim i javnim prostorima u partnerskim zemljama, u skladu s dobrom praksom zemalja EU.

Partneri iz Evropske unije imali su savetodavnu ulogu u projektu, dok su univerziteti i pozorišta iz Srbije i Bosne i Hercegovine direktno radili na razvoju novih nastavnih planova i programa obuke i njihovom poboljšavanju. Okupljeni tim stručnjaka trebalo je da smisli nove metodologije i nov nastavni materijal za pripremljene interdisciplinarnе kurseve.

Ovaj projekat bi trebalo da omogući umrežavanje i podstakne buduću saradnju između profesionalaca i potencijalnih budućih poslodavaca, odnosno pozorišta i drugih institucija koje se bave produkcijom javnih događaja.

Pozorišni tehničari i drugi scenski radnici koji rade u pozorištima u Srbiji i Bosni i Hercegovini nisu adekvatno obučeni za rad na savremenim tehničkim uređajima i shodno zahtevima savremenih vidova scenske umetnosti. U poslednjih nekoliko godina uspostavljene su neke srodne studije univerziteta na određenim nivoima. Nerealno je, međutim, s obzirom na njihovu dob i prethodno iskustvo, očekivati da svi pozorišni tehničari idu na edukaciju pune četiri godine studija. U skladu sa strategijom za celoživotno učenje i povezivanje univerziteta s tržištem rada, cilj je da ovi interdisciplinarni kursevi pozorišnim tehničarima i scenskim radnicima omoguće da steknu potrebnu stručnost, a svim nezaposlenima koji žele da se prekvalifikuju, ili onima koje to zanima, da dobiju osnovna ili napredna znanja i veštine iz ovih oblasti. Polaznici ovih kurseva mogli bi, nakon što ih uspešno završe, raditi u pozorištima i u svim vrstama javnih ustanova vezanim za kulturni i javni život, te scenu i scenski prostor.



## Metodologija

U Srbiji i Bosni i Hercegovini ljudi koji rade kao pozorišni tehničari nisu adekvatno obučeni, što je pokazala trogodišnja studija „Tehničko-tehnološko stanje i potencijali arhitektonskih objekata za scenske događaje u Republici Srbiji“ (2008–2010). Ovakvi rezultati studije bili su očekivani, jer ni u Srbiji ni u Bosni i Hercegovini ne postoji obuka za pozorišne tehničare. Slične studije nisu rađene u Bosni i Hercegovini, ali nema razloga da se veruje da je tamo situacija drugačija. To stanje negativno utiče na kreativne standarde pozorišnih predstava, ali što je još važnije, negativno se odražava na pitanja zdravlja i sigurnosti vezana za pozorišne radnike i publiku.

Odluka da se pokrene ovakav projekat doneta je na sastanku Komisije za obrazovanje OISTAT, održanom u Novom Sadu, u organizaciji Centra za scenski dizajn, arhitekturu i tehnologiju, istraživačkog centra koji je osnovao Fakultet tehničkih nauka Univerziteta u Novom Sadu. Predstavnici svih škola u konzorcijumu ovog projekta prisustvovali su sastancima, na kojima je zaključeno da bi bilo vrlo korisno i potrebno imati kurseve za pozorišne tehničare i menadžere scene. Polaznici tih kurseva bili bi visoko zapošljivi u EU (novi kursevi za pozorište tehničara UN-a u Velikoj Britaniji postigli su izuzetan stepen), tako da se osnovano veruje da bi se time poboljšala njihova zapošljivost i u Srbiji i Bosni i Hercegovini, s obzirom na to da su ljudi obučeni za rad s pozorišnom tehnikom potrebni ne samo u pozorištima već za sve vrste javnih scenskih nastupa, predstava za publiku, bilo da je reč o pozorišnoj predstavi, sportskom događaju ili bilo kakvoj kulturno-kreativnoj prezentaciji.

Sámo prisustvo i aktivno učešće pozorišnih institucija u ovoj vrsti projekta pokazuje koliko su one zainteresovane za poboljšanje svoje prakse i unapređenje kompetencija pozorišnih tehničara. Jedan od očekivanih rezultata ovog projekta je temeljno istraživanje s predlogom za sistem obaveznog licenciranja scenskih radnika, poslata odgovarajućim ministarstvima u Srbiji i Bosni i Hercegovini.

Na početku projekta, članovi konzorcijuma su analizirali trenutno obrazovanje i nivo kompetentnosti pozorišnih tehničara, kao i potrebne kompetencije i ishod učenja koji se očekuju od obučenog pozorišnog tehničara, a na osnovu iskustva EU partnera. Kombinacija ishoda tih aktivnosti s informacijama o strategijama zapošljavanja pružila je neophodnu osnovu za definisanje nastavnih planova i programa obuke. Takođe, u skladu s uočenim zakonodavnim razlikama, licenciranje će se jasno definisati spram važećih dokumenata o Strateškom razvoju visokog obrazovanja BiH i Srbije, okvira kvalifikacija BiH i Srbije, u skladu sa standardima zanimanja i standardima zapošljavanja.

Kriterijumi za pristupanje budućih polaznika kurseva definisani su u silabusima. Treba precizno definisati iskustvo i obrazovni nivo koji potencijalni učesnik određenog kursa mora imati, što će nezaposlenim kandidatima s dovoljnim prethodnim kompetencijama i veštinama omogućiti da nakon njega mogu naći odgovarajući posao.



Istraživanja su pokazala da pozorišni tehničari nemaju adekvatnu obuku za savremene scenske poslove, ali i da nisu spremni za upoznavanje i korišćenje novih tehnologija. To stvara i probleme u razumevanju između mlađih i starijih pozorišnih tehničara, jer se mladi razumeju u nove tehnologije a nemaju iskustva, a stariji imaju iskustvo ali nisu obučeni za rad na novim tehnologijama.

U toku projekta, i treneri i polaznici kurseva školovaće se koristeći iskustva partnera EU u tom procesu. Potrebne dopune prethodno postojeće opreme i knjiga biće veoma važne za same interdisciplinarnе kurseve, i učiniće ih efikasnijim u radu s novim tehnologijama i trendovima na tržištu rada.

Ova vrsta obuke treba da omogući pozorišnim tehničarima da bolje razumeju jedni druge. To važi i za komunikaciju sa stranim pozorišnim tehničarima, što je veoma važno zbog gostovanja pozorišnih predstava iz inostranstva, kao i za pozorišne kampanje obilaska drugih zemalja. Kursevi se u toku projekta odvijaju u sve tri oblasti (scena, zvuk, svetlo), a povratne informacije nakon kurseva bile su od pomoći u razmatranju predmeta nastavnog plana i programa i njihovog oblikovanja, što je bitno za preciznije sagledavanje mogućnosti poboljšanja kompetencija za potrebe tržišta rada i samih učesnika, te preciziranje predznanja i očekivane ishode učenja i obučavanja. Napravljen je adekvatan Upitnik za analizu stanja na tržištu rada, a analizirane su i informacije značajne za kontrolu kvaliteta rada. U kurseve su uključeni članovi tima i sa univerziteta i iz pozorišta uključenih u ovaj projekat, kombinuju se teorijska predavanja i praktične vežbe, uz korišćenje pozorišne tehnologije i prostora, kao i nove opreme nabavljene u okviru projekta.

Budžet projekta je strukturiran, pre svega kako bi se olakšao rad na novim kursevima, posebno u pogledu uvida u metode rada u drugim EU institucijama i nabavku najsavremenije opreme za Univerzitete u Srbiji i Bosni i Hercegovini. Poseta Velikoj Britaniji vremenski se podudarala s WSD (World Stage Design) događajem, gde su učesnici mogli da uspostave kontakt, pohađaju radionice i slušaju izlaganja predavača iz svih krajeva sveta. Isto tako, bili su blisko uključeni u tehničku podršku tako velikog događaja, što je bilo neprocenjivo iskustvo na vlastitom radu. Tokom posete Stockholm Academy of Dramatic Arts u Stokholmu, u Švedskoj, rešavani su konkretni problemi scenskog rada u laboratorijama koje ova institucija ima. Tokom posete Erasmushogeschoolu u Briselu, Belgija je pružila neprocenjivo iskustvo jer je to škola koja ima, osim obuke, i centar za testiranje pozorišnih tehničara na terenu.

Implementacija obuke doneće poboljšanje kreativnih, tehničkih i bezbednosnih standarda rada u pozorišnim i javnim prostorima u partnerskim zemljama, u skladu s dobrom praksom zemalja EU. Projekat će poboljšati kontakte i umrežavanje polaznika kurseva i tržišta rada u oblasti scenskog rada i organizacije brojnih događaja iz domena kulture.



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## **Delatnost na projektu i radni paketi**

### **WP1 (DEV) Definisanje profila pozorišnih tehničara i menadžera kroz određene faze prema potrebnim kompetencijama i veštinama**

- 1.1 Komparativna analiza trenutnog obrazovanja i nivoa kompetentnosti pozorišnih tehničara i menadžera u Srbiji i BiH, kao i u zemljama EU
- 1.2 Pravljenje liste potrebnih kompetencija i ishoda učenja, uz korišćenje iskustava partnera iz EU
- 1.3 Komparativna analiza zakonodavnog okvira, licenciranja i strategija zapošljavanja u oblasti Srbije i BiH, kao i u zemljama EU

### **WP2 (DEV) Definisanje kurseva na bazi potrebnih kompetencija**

- 2.1 Definisanje nastavnog plana i programa
- 2.2 Obezbeđivanje potrebne literature i nastavnih sredstava
- 2.3 Obuka stručnjaka i budućih nastavnika za rad i održavanje budućih kurseva

### **WP3 (DEV) Implementacija kurseva za pozorišne tehničare i menadžere scene**

- 3.1 Definisanje kriterijuma za upis
- 3.2 Upis polaznika na kurseve
- 3.3 Implementacija kurseva
- 3.4 Omogućavanje poseta partnerima iz EU institucija
- 3.5 Evaluacija i analiza upitnika

### **WP4 (DEV) Priprema platforme za povezivanje tržišta rada s polaznicima kurseva**

- 4.1 Pravljenje baze podataka s kontaktima pozorišnih tehničara, uključujući i njihove nadležnosti i posebne veštine
- 4.2 Smišljanje i izvođenje radionice za nastavno osoblje i profesionalce
- 4.3 Informisanje profesionalaca i tržišta rada o prednostima obuke

### **WP5 (QPLN) Kontrola kvaliteta projekta**

- 5.1 Praćenje opšteg procesa
- 5.2 Stalni nadzor kurseva
- 5.3 Pregled nastavnih planova i programa kurseva
- 5.4 Pregled metodologije
- 5.5 Analiza mišljenja tržišta rada i reakcije na kurseve



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### **WP6 (DISS) Širenje rezultata projekta**

- 6.1 Razvoj i održavanje veb stranice, informacije o rezultatima projekta za sve zainteresovane
- 6.2 Organizovanje otvorenih dana i radionica u vezi s novim tendencijama rada na sceni
- 6.3 Priprema publikacije o projektnim aktivnostima i rezultatima
- 6.4 Marketing, formiranje mreže institucija i odnosi s javnošću
- 6.5 Objavljivanje studije o predloženom sistemu obaveznog licenciranja

### **WP7 (EXP) Pružanje održivosti projekta**

- 7.1 Definisanje pogodnosti koje obavezni sistem licenciranja može doneti u partnerskim zemljama.
- 7.2 Detaljna studija o razlozima uvođenja obaveznog sistema licenciranja, sa sveobuhvatnim predlogom kako se treba organizovati, na osnovu iskustva iz projekta
- 7.3 Održavanje kurseva nakon završetka projekta
- 7.4 Potpisivanje sporazuma o budućoj saradnji između pozorišta i univerziteta u partnerskim zemljama i zemljama EU

### **WP8 (MNGT) Project Management**

- 8.1 Kick-off sastanak
- 8.2 Osnivanje projektnog tima u svakoj instituciji učesnici projekta
- 8.3 Menadžment projekta
- 8.4 Finansijski menadžment



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## Konzorcijum projekta

- Univerzitet u Novom Sadu (Srbija) – koordinator projekta
- Univerzitet umetnosti u Beogradu (Srbija)
- Univerzitet u Banjoj Luci (Bosna i Hercegovina)
- Univerzitet u Tuzli (Bosna i Hercegovina)
- The Royal Welsh College of Music and Drama (Kardif, UK)
- Stockholm Academy of Dramatic Arts (Švedska)
- Erasmushogeschool Brussels (Belgija)
- Srpsko narodno pozorište iz Novog Sada (Srbija)
- Narodno pozorište iz Užica (Srbija)
- Narodno pozorište Republike Srpske, Banja Luka (Bosna i Hercegovina)



Kick-off sastanak, Novi Sad, 14–15. decembar 2012.



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## REZULTATI PROJEKTA

### Utvrđivanje kompetencija

#### Detaljna analiza postojećeg stanja, strukture i organizacije tehničkih sektora u pozorištima, kompetencija i nivoa obrazovanja zaposlenih

Na osnovu istraživanja definisana je detaljna lista kompetencija potrebnih za rad u različitim oblastima scenske tehnike i dizajna, koja predstavlja polaznu osnovu za rad na silabusima interdisciplinarnih kurseva. Kursevi su namenjeni pre svega pozorišnim tehničarima i drugim osobama koje rade sa scenskom tehnikom, mladima koji su završili srednju školu i ne žele da studiraju a interesuje ih usavršavanje u ovoj oblasti, kao i akademski obrazovanim osobama koje žele da se doškoluju u određenoj oblasti scenske tehnike i dizajna.

### COMPETENCE UNITS

#### STAGE (GENERAL) COMPETENCES, INDEPENDENT OF THE PROCESS

- Ensure the visual quality of the scenery and set-dressing
- Foresee and prevent technical problems with stage equipment
- Foresee and prevent technical problems with scenic elements

### PLANNING THE SHOW

- Draw stage layouts manually

### PREPARING THE SHOW

- Install and test technical stage equipment
- Fit up scenic elements on stage
- Mark the information from the ground plans to the stage area

### REHEARSING THE SHOW

- Fit up and strike the rehearsal set
- Handle scenic elements during rehearsal

### RUNNING THE SHOW

- Changeover of scenic elements during performance

### STAGE (AUTOMATED) COMPETENCES

#### MAINTENANCE

- Check, maintain and repair stage equipment for horizontal movement
- Check, maintain and repair stage elevators and traps



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## Rezultati analize tržišta rada:

Osnovni rezultati prve analize bili su očekivani, a utvrđeno je da pozorišni tehničari i scenski menadžeri nisu adekvatno obučeni za svoj rad, što može sniziti kvalitet stvaralaštva, ali i dovesti do potencijalnih nezgoda na sceni, koje mogu biti veoma opasne i za ljude koji rade i za publiku. Razlog za ovakve rezultate je, između ostalog, i to što nema kurseva za pozorišne tehničare.

Tokom analize prepoznata su tri osnovna problema:

- Odsustvo adekvatne obuke pozorišnih tehničara,
- Nevoljnost u korišćenju novih tehnologija,
- Jaz u razumevanju između mlađih i starijih pozorišnih tehničara.

U razgovorima s rukovodećim licima u kulturnim institucijama uočena je potreba da se uvede sistem obaveznog licenciranja pozorišnih tehničara i menadžera, kao i da se jasno definiše zakonska regulativa za rad na sceni.

## Definisanje kurseva, struktura kurseva

Na tri sastanka se radilo na definisanju silabusa. Krenulo se od liste kompetencija, koje su korišćene kao „merne jedinice“ za poređenje različitih profila pozorišnih tehničara i proveru trenutnog stanja. Na osnovu rezultata ankete u pozorištima (Test Training Needs), razvijeni su generički profili zaposlenih, nakon čega se pristupilo razvijanju kurseva za oblasti zvuka, svetla i scenskog menadžmenta. Istovremeno su u svakoj partnerskoj instituciji odabrani budući predavači na kursevima, kojima su svoja iskustva preneli partneri iz zemalja EU.



Sastanak u Kardifu, Velika Britanija



Na osnovu analize postojećeg stanja, strukture i organizacije tehničkih sektora u pozorištima, kompetencijâ i nivoa obrazovanja zaposlenih, te liste neophodnih kompetencija, definisani su silabusi kurseva različitih nivoa usavršavanja u oblastima scenske tehnike, arhitekture, dizajna i tehničke produkcije. Silabusi predstavljaju spoj znanja i veština iz domena različitih scenskih tehnologija i umetnosti koji treba da omoguće visok nivo sposobnosti i kompetencija za učešće u najzahtevnijim scenskim projektima. Za svaki nivo kursa formulisani su kriterijumi i utvrđena potrebna predznanja za buduće polaznike, a program rada osmišljen je tako da u njima mogu da učestvuju i redovni studenti arhitekture, dizajna svetlosti i zvuka, scenografije i kostimografije, kako bi stekli više stručnog iskustva i praktično primenjivog znanja.

#### **Pregled kurseva po kategorijama:**

- Osnovni kurs za menadžere pozornice,
- Napredni kurs za menadžere pozornice,
- Osnovni kurs za tehničare svetla,
- Napredni kurs za tehničare svetla,
- Osnovni kurs za tehničare zvuka,
- Napredni kurs za tehničare zvuka. [2]

Na kursevima je posebna pažnja posvećena određivanju i primeni propisa, standarda i bezbednosti na radu u oblasti scenskog dizajna, u skladu s praksom i iskustvima zemalja EU. Predviđeno je da kursevi traju dva do pet dana, u zavisnosti od nivoa polaznika. Rad predviđa predavanja, praktičnu obuku, prezentacije, diskusije i radionice. Kursevi će se odvijati na univerzitetima i u pozorištima uključenim u projekat, kako bi se kombinovala teorijska predavanja i praktične vežbe, uz korišćenje pozorišne tehnologije i prostora.

#### **Očekivani ishodi interdisciplinarnih kurseva**

Očekuje se da kursevi podignu kreativne, tehničke i bezbednosne standarde rada na scenskim prostorima i poboljšaju akademsko napredovanje osoblja i studenata koji se u bilo kojem segmentu susreću s ovom problematikom. Projektom je uspostavljena neposredna saradnja između univerziteta i pozorišta koji su partneri u projektu. Plan je da se tokom realizacije projekta formira mreža i inicira dugoročna saradnja između akademskih i institucija koje se bave produkcijom javnih događaja u umetnosti i kulturi. Važna stvar koja bi trebalo da proistekne iz rada na projektu jeste studija s predlogom mogućeg sistema obaveznog licenciranja pozorišnih tehničara, u čiju bi realizaciju morala biti uključena široka mreža kulturnih i zakonodavnih institucija, zarad Strateškog razvoja visokog obrazovanja, uspostave i implementacije standarda zanimanja i standarda kvalifikacija prema potrebama poslodavaca.



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## POGLAVLJE II

Interdisciplinarni kursevi zamišljeni su tako da spoje znanja i veštine iz domena različitih scenskih tehnologija i umetnosti, i trebalo bi da omoguće razvoj visokog nivoa sposobnosti i kompetencija za učešće u najzahtevnijim scenskim projektima i pozorišnoj produkciji u celini. Cilj ovih kurseva je i da se prevaziđe jaz u razumevanju između mlađih i starijih pozorišnih tehničara (što je i prikazano u rezultatima istraživanja), jer se ispostavlja da mladi razumeju i poznaju nove tehnologije ali nemaju dovoljno iskustva, dok stariji to iskustvo imaju ali nisu zainteresovani da uče o novim tehnologijama, a to je važno zbog što višeg kvaliteta stvaralaštva, s jedne, ali i nivoa bezbednosti samog rada na sceni, s druge strane.

### Sastav predavača na kursevima

Posebna pažnja tokom realizacije projekta „SCENTEC“ posvećena je formiraju timova koji su smislili i držali kurseve, a koji će se i po završetku projekta angažovati na prenošenju znanja i usavršavanju pozorišnih radnika. Već prilikom definisanja silabusa kurseva za tehničare svetla, tehničare zvuka i menadžere pozornice formirani su međunarodni timovi koji će raditi na njihovoj implementaciji, a čiji su članovi profesori i asistenti iz akademskih institucija, koji imaju veliko iskustvo u oblasti pozorišne tehnike i tehnologije, ali i višegodišnje iskustvo u oblasti edukacije, kao i ljudi iz pozorišnih institucija, koji imaju konkretna iskustva i svest o potrebama s kojima se svakodnevno susreću i zbog čega su veoma zainteresovani za kurseve koji bi unapredili stručnost zaposlenih u ovoj oblasti.

U timovima učestvuju zaposleni s Univerzitetom u Novom Sadu, koji je koordinator ovog projekta, Univerziteta umetnosti u Beogradu, Univerziteta u Banjoj Luci, Univerziteta u Tuzli i iz tri pozorišne institucije: Srpskog narodnog pozorišta iz Novog Sada, Narodnog pozorišta iz Užica i Narodnog pozorišta Republike Srpske iz Banje Luke. Stručnu pomoć u vidu razmene iskustva pružili su i kolege s partnerskikh institucija zemalja EU: The Royal Welsh College of Music and Drama (Cardiff, UK), Stockholm Academy of Dramatic Arts (Sweden), Erasmus Hogeschool Brussels (Belgium) i National Academy of Arts Sofia (Bulgaria). Time je omogućena sinteza iskustava rada akademskih institucija i konkretnih potreba, znanja i veština pozorišnih radnika iz naše zemlje i regionala, pedagoškog i metodičkog rada naučno/umetničkog osoblja, i iskustva u ovim oblastima partnera iz zemalja EU.



## Implementacija kurseva

Radi što boljeg prilagođavanja potrebama radnika i poslodavaca na tržištu rada u ovoj oblasti, a na osnovu prethodne analize i utvrđenih potrebnih kompetencija, tri radne grupe, sačinjene od stručnjaka za svaku oblast (svetlo, zvuk, scenski menadžment), razvile su silabuse za sledeće kurseve:

- Osnovni kurs za menadžere pozornice,
- Napredni kurs za menadžere pozornice,
- Osnovni kurs za tehničare svetla,
- Napredni kurs za tehničare svetla,
- Osnovni kurs za tehničare zvuka,
- Napredni kurs za tehničare zvuka.

Za svaki nivo kursa formulisani su kriterijumi i utvrđena potrebna predznanja za buduće polaznike. Rad na kursevima predviđa predavanja, praktičnu obuku, prezentacije, diskusije i radionice. Konkretni zadaci na kursevima usmereni su ka sistematizovanju i standardizovanju znanja i iskustva polaznika kroz pokazne i samostalne vežbe, a posebna pažnja posvećena je propisima i standardima u domenu bezbednosti na radu u realizaciji scenskih događaja.

Kursevi u okviru „SCENTEC“ projekta održani su u Novom Sadu (za tehničare svetla – osnovni i napredni nivo, za tehničare scene – osnovni i napredni nivo), u Beogradu (dizajn zvuka – osnovni i napredni nivo) i Banjoj Luci (za tehničare scene – osnovni nivo), a predavači su bili timovi iz institucija učesnica projekta. Kao što je silabusima predviđeno, kursevi su trajali dva ili pet dana, u zavisnosti od obima znanja koje polaznici treba da steknu, a odvijali su se na univerzitetima i u pozorištima uključenim u projekat, kako bi se teorijska predavanja kombinovala s praktičnim vežbama. Učesnici kurseva pažljivo su odabrani na javnom konkursu na osnovu prijava koje su podneli, kako bi struktura polaznika bila ujednačena i omogućio se što bolji napredak u sticanju novih znanja i veština.

Na osnovu dosadašnjih kurseva i njihovih polaznika, može se zaključiti da su podjednako zainteresovani i početnici u ovoj oblasti i već ostvareni stručnjaci, pa su kursevi zato i realizovani na različitim nivoima. Broj prijava pokazuje da je interesovanje veliko, te se može zaključiti da će i za buduće kurseve biti zainteresovanih polaznika, čime je opravdano njihovo organizovanje, obezbeđena održivost projekta i uspostavljena čvršća regionalna saradnja sa stručnjacima u ovoj oblasti.

Prvi osnovni kurs za tehničare zvuka održan je 28. i 29. aprila 2014. godine, na Kamernoj sceni Srpskog narodnog pozorišta u Novom Sadu. Nakon javnog poziva, devetnaest učesnika se uključilo u ovaj kurs, a polaznici su bili studenti svih nivoa



studija, nekoliko učenika iz srednje tehničke škole, kao i tri profesionalna scenska radnika. Većina ih je bila bez predznanja o oblasti dizajna svetla i sa opštim znanjem o radu na sceni. Predavači su bili članovi tima za oblast svetla: doc. Žarko Lazić s Univerziteta u Novom Sadu, doc. Draško Gajić s Univerziteta u Banjoj Luci, Zoran Pavljašević i Damir Pirić s Univerziteta u Tuzli, Tihomir Boroja iz Srpskog narodnog pozorišta i Goran Mirković iz Ateljea 212 (kao spoljni stručnjak). Kurs je bio tematski podeljen na četiri dela: Teorijski uvod o istoriji scenske rasvete s osnovnom terminologijom i osnovama tehnike i tehnologije u scenskoj rasveti; Električne instalacije i kontrolni sistemi u pozorištu; Praktični prikaz upotrebe scenske rasvete; Zajednički praktični rad polaznika s rasvetom. Na ovaj način povezani su teorijski deo i praktični deo s jednostavnim vežbama.

Nakon osnovnog, organizovan je drugi, napredni kurs za tehničare svetla, namenjen isključivo profesionalcima s iskustvom u ovoj oblasti. Osim navedenog tima predavača, s polaznicima je radio profesor Michael Ramsaur, profesor sa Univerziteta Stanford i gostujući profesor na Fakultetu tehničkih nauka Univerziteta u Novom Sadu. Kurs je održan 4. i 5. maja 2014. godine, na Kamernoj sceni u Srpskom narodnom pozorištu u Novom Sadu. Učestvovalo je dvanaest polaznika, profesionalni radnici iz pozorišta (Narodno pozorište Subotica, Malo pozorište „Duško Radović“ Beograd, Srpsko narodno pozorište Novi Sad), i studenti master i doktorskih studija s Univerziteta u Novom Sadu. Fokus ovog kursa bio je na projektovanju – definisanju koncepta, izradi idejnog projekta i razradi projektne dokumentacije za izvođenje scenskog događaja iz ove oblasti. Deo kursa bio je posvećen i konkretnoj analizi najsavremenijih dostignuća produkcije iz oblasti dizajna svetla, posmatrano kako na nivou primenjene tehnike i tehnologije, tako i na nivou značaja dobre timske komunikacije.

Treći kurs organizovan je za tehničare zvuka na osnovnom nivou 26–30. januara 2015. godine, na Fakultetu dramskih umetnosti u Beogradu. Kurs je pohađalo četrnaest polaznika, od kojih su polovinu činili studenti, a polovinu ljudi iz profesionalne prakse. Kurs je vodio tim zadužan za oblast zvuka: prof. Branislava Stefanović, doc. Dobrivoje Miljanović, Pavle Dinulović i Ksenija Marković s Univerziteta umetnosti iz Beograda, prof. mr Olivera Gračanin i doc. dr Romana Bošković s Univerziteta u Novom Sadu i Dušan Jovanović iz Srpskog narodnog pozorišta iz Novog Sada. U toku intenzivnog rada, polaznici su se upoznali s teorijskim znanjima o razumevanju umetničkih namera, važnosti komunikacije između zaposlenih u umetničkom i tehničkom sektoru, pozorišnom terminologijom, važnosti ergonomije, bezbednosti, organizacionim modelima pozorišta i podeli posla, a zatim kroz praktičan rad na pozorišnoj sceni u profesionalnim uslovima stekli znanja na polju realizacije zvuka na postavci i povezivanju audio sistema za scensko-muzičko delo. Kursu je prisustvovao i profesor Ian Evans, s partnerske institucije iz EU, koji je na vežbama slušanja polaznicima predstavio objektivne i subjektivne aspekte ozvučavanja scensko-gledališnog prostora. Poseban značaj ovog kursa jeste direktno učešće polaznika u realizaciji koncerta kao završnog događaja, kada su postali učesnici u muzičko-scenskom događaju, što im je omogućilo da sagledaju tehničke i umetničke aspekte ovakvog događaja.

Cetvrti i peti kurs održani su u dve faze na Fakultetu tehničkih nauka,



Univerziteta u Novom Sadu (6–7. marta i 2–3. aprila 2015. godine), i bili su u domenu tehnike scene. Kurs je bio namenjen svim zainteresovanim studentima ili profesionalcima, a vodio ga je prof. dr Radivoje Dinulović. Nakon seta predavanja o dizajnu scene i radu na sceni (predavala doc. dr Romana Bošković), svi kandidati su imali priliku da kroz praktičan rad primene stečena teorijska znanja, u delu koji je vodio Mičkei Karl (Fakultet tehničkih nauka, Univerzitet u Novom Sadu). Polaznici kursa su u smanjenoj razmeri imali priliku da realizuju scenografiju u Kafkinoj kući u Pragu, osmišljenu za nastup Srbije na Praškom kvadrijenalnu 2015. godine.

Šesti i sedmi kurs održani su u Beogradu, 12. i 13. novembra 2015. godine, za osnovni nivo tehničara zvuka i 18–20. novembra 2015. godine za napredni nivo. Kursevi su se odvijali na Fakultetu dramskih umetnosti Univerziteta umetnosti u Beogradu. Kurs je trajao tri dana, a predavači su bili Branislava Stefanović, profesor (UU); Dobrivoje Miljanović, docent (UU); Olivera Gračanin, docent (UNS); Pavle Dinulović (UU); dr Romana Bošković, docent (UNS); Ksenija Marković (UU). Prvi dan su bila predavanja i razgovor sa studentima, a drugog i trećeg dana održana je praktična proba umetničkog dela kroz postavljanje i rad na složenim zvučničkim sistemima. U predavanjima su pokrivene napredne teorijske teme: razumevanje uloge zvuka u pozorištu, zdravlje, bezbednost i održivost, difuzija zvuka u prostoru pozorišta, zvučni procesori, digitalne miksete, sistemi za upravljanje zvučnicima, osnove digitalne audio radne stanice, osnove sistema kontrola softvera.

Osmi kurs održan je 24–26. novembra 2015. godine u Banjoj Luci, za tehničare pozornice, u saradnji Univerziteta u Banjoj Luci i Univerziteta u Tuzli, a na sceni partnerskog tetatra Narodnog pozorišta Republike Srpske iz Banje Luke. Imao je dvadeset sedam učesnika. Bila su dva različita kursa: osnovni kurs za tehničare scene, održan 24–26. novembra 2015. godine, i osnovni kurs za tehničare svetla, održan 25. i 26. novembra 2015. godine u Banjoj Luci na Arhitektonsko-građevinsko-geodetskom fakultetu Univerziteta u Banjoj Luci. Učesnici su bili studenti Odseka za arhitekturu, Arhitektonsko-građevinsko-geodetskog fakulteta Univerziteta u Banjoj Luci, s Odseka za animaciju i Odseka za pozorište, produkciju i režiju Akademije umetnosti Univerziteta u Banjoj Luci, s Odseka za produkciju Akademije dramske i scenske umjetnosti u Tuzli i iz Dis pozorišta u Banjoj Luci, kao i nekoliko drugih učesnika kojima je ova profesionalna orientacija bliska. Na trodnevnom kursu predstavljeno je teorijsko i praktično znanje iz oblasti tehničkih rešenja u fazi izgradnje scene u razmeri 1:4, a kurs su vodili Chris Van Goethem (Podiumtechnieken RITS, Erasmushogeschool Brussel), Marina Radulj i Maja Ilić (Arhitektonsko-građevinsko-geodetski fakultet Univerziteta u Banjoj Luci) i Zoran Pavljašević (Univerzitet u Tuzli). Ovaj kurs, zajedno s dvodnevnim kursem za tehničare svetla, koji su vodili Anders Larsson (Stockholm Academy of Dramatic Arts) i Draško Gajić (Akademija umetnosti Univerziteta u Banjoj Luci), bili su vrlo intenzivni i dali su potpun doživljaj potrebnih kompetencija i veština iz obe oblasti. Kursevi su obuhvatili predavanja o ulozi ovih profesija u različitim fazama rada na sceni, o zdravlju i bezbednosti rada na sceni, o različitim temama vezanim za svetlo, a sve je kombinovano s praktičnim radom. Završni deo kursa odnosio se na razgovor s učesnicima i trenerima o ishodima radionice, ali i samoevaluaciju sa zaključnim komentarima.



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## Ishodi održanih radionica

Nakon ovih kurseva u okviru projekta „SCENTEC“, može se zaključiti da je postignuta dobra praksa usavršavanja ovim, za naše prostore novim načinom edukacije, koji podrazumeva sticanje konkretnih teorijskih i praktičnih znanja, veština i kompetencija kroz intenzivan rad i u kratkom vremenskom roku.



Osnovni kurs za tehničare svetla održan  
u Novom Sadu



Osnovni kurs za tehničare zvuka održan  
u Beogradu

Organizovanje ovih kurseva primer je saradnje akademskih institucija s pozorištima u regionu, ali i sa scenskim radnicima uopšte. Kako ubrzan razvoj tehnologije i sve složeniji poslovi zahtevaju od radnika da imaju sve više kompetencija i da kontinuirano stiču nova znanja i veštine, može se reći da su kursevi smisljeni pod okriljem ovog projekta korak ka odgovoru na potrebe tržišta rada i stanje u oblastima rada na sceni i pružanju mogućnosti kvalitetnog sticanja novih kompetencija u institucionalnom sistemu obrazovanja.

Iskustvo s kurseva potvrđuje potrebu da se oni organizuju, da se formira mreža i inicira dugoročna saradnja između akademskih institucija i potencijalnih poslodavaca, odnosno pozorišta i drugih institucija koje se bave produkcijom javnih događaja u umetnosti i kulturi. Na ovakvim kursevima scenski radnici mogu steći i usavršiti neophodna znanja u domenu profesionalnih pozorišnih praksi, a nezaposlena lica se preorientisati i prekvalifikovati za rad u ovoj oblasti, čime se omogućava i celoživotno učenje [3]. To nesumnjivo doprinosi unapređenju kvaliteta rada, posebno u oblastima u kojima je tehnološki napredak brz.



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## SYLLABUSES FOR INTERDISCIPLINARY COURSES

### DEVELOPMENT AND IMPLEMENTATION OF COURSES FOR THEATRE TECHNICIANS AND STAGE MANAGERS (ScenTec) 530810-TEMPUS-1-2012-1-RS-TEMPUS-JPHES

**Course:** Basic course for lighting technicians

**Lecturers:** Žarko Lazić (AUNS), Tihomir Boroja (SNP), Goran Mirković (Atelje 212), Draško Ađić (UNiBL), Zoran Pavlišević (UNTZ), Damir Pirić (UNTZ)

**Number of classes:** 24

**2+8, 2+8, 0+4**

**ECTS credits:** 2

**Prerequisites:** Before entering the course, the trainee needs to pass a test in basics electronics and basic understanding of stage systems

#### 1. Educational objectives:

Competences on a professional level

Technical skills

Collaborative attitude

#### 2. Educational outcomes (acquired competences):

- Working knowledge of electrical installations, light sources, lighting fixtures and rigging systems.
- Ability to find and eliminate basic problems and errors in lighting fixtures (bulb, cap, plug, cable).
- Safe and correct rigging of light fixtures.
- Light control (light beam).
- Correct and safe connection of luminaires to the electric network (dimming systems) and connections to the lighting desk.
- Safety measures.

#### 3. Course content/structure:

##### 1. Short introduction on stage history and stage lighting, introducing basic terminology:

1.1 What is light, visible light, speed of light, light spreading, reflection, refraction, light colour temperature.

1.2 Ancient theatre (Egypt, Greece, Rome), Early Christianity, Early middle ages, Middle ages, Renaissance (up to gas era), Modern age (introduction of electricity into theatre spaces).



- 2. Basic techniques and technological processes in stage lighting:**
  - 2.1 Electrical installations: Sockets, plugs, cables, adapters.
  - 2.2 Artificial sources of light (bulbs): Incandescent lamps, light bulbs emitting light using the principle of the Volta port, LE-emitting diode.
  - 2.3 Luminaires: structure of luminaires, types of luminaires, functioning principles of luminaires.
  - 2.4 Rigging luminaires: grid, fly bars, hooks, clamp hooks, pantographs, telescopes, extenders, tripods
  - 2.5 Dimming units and brackets (lighting desk): types of dimming units, proper use of dimming units, basic introduction to lighting desks.
  - 2.6 Luminaires (light beam) control, setup and routing of luminaires (light beam).

**3. Safety:**

- 3.1 Individual safety
- 3.2 General safety

**4. Teaching methods:**

Lectures

Practical training

Working at a live event

**Literature:**

Stage Lighting Handbook: Francis Reed

Stage Lighting – The Technicians Guide And On-The-Job Reference Tool: Skip Mort

Light Fantastic: The Art Design of Stage Lighting by Max Keller

**Evaluation of competences:**

The evaluation of knowledge will be done through a practical exercise, which will be a simulation of light technician's tasks in a professional environment.



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**DEVELOPMENT AND IMPLEMENTATION OF COURSES FOR THEATRE  
TECHNICIANS AND STAGE MANAGERS (ScenTec)  
530810-TEMPUS-1-2012-1-RS-TEMPUS-JPHES**

**Course: Advanced course for lighting technicians**

**Lecturers:** Žarko Lazić (AUNS), Goran Mirković (Atelje 212), Tihomir Boroja (SNP), Draško Ađić (UNiBL), Zoran Pavljašević (UNTZ), Damir Pirić (UNTZ)

**Number of classes: 26**

**2+4, 2+8, 2+8**

**ECTS credits: 2**

**Prerequisites:** Before entering the course, the trainee needs to pass the lighting technicians basic course, or to have extensive experience in working as a light technician and to pass a test in stage lighting technology

**1. Educational objectives:**

Competences on a professional level

Technical skills

Collaborative attitude

**2. Educational outcomes (acquired competences):**

Skills required for working on light design systems

Usage of projections and light design systems

**3. Course content/structure:**

**1. Basics of scene design**

1.1 Elements of scene design

1.2 Scene design and theatre

1.3 Scene design and technical production

1.4 Stage lighting design

- Light beam

- The role of light in the artistry of design for stage – performance space

- Light and space

- Interaction of light and other elements of scene design

1.5 Stage space

- Stage space architecture

- Stage

- Stage and visual arts

- Light and space



## **2. Present-day stage technology**

### **2.1 Stage lighting system**

- Stage lighting concept
- Types (large and small capacity, analogue, digital...)
- Designing a stage lighting system
- Functionality and usage of a stage lighting system

### **2.2 Elements of stage lighting systems (analogue and digital)**

#### **2.2.1 Dimers**

#### **2.2.2 PATCH**

#### **2.2.3 Electro installations**

#### **2.2.4 Console – handling a stage lighting system**

#### **2.2.5 Luminaires**

- Conventional luminaires
- Intelligent luminaires
- Functionality and preparation

#### **2.2.6 Communications (wired and wireless)**

#### **2.2.7 Communications protocol – DMX**

### **2.3 Maintenance of the stage lighting equipment**

## **3. Functional usage of stage technology**

### **3.1 Terminology, marking and archiving lighting designs**

- Symbols (marking the elements of stage lighting)
- Stage lighting plan – Light plot
- Memorising and reviewing light changes
- PATCH – marking and reviewing

### **3.2 Arranging luminaires – work on putting up stage luminaires**

- Preparations preceding rigging
- Rigging (covering different parts of stage)
- Adjusting luminaires
- Lighting cues
- Recording lighting cues
- Lighting cue changes
- Lighting rehearsal
- Costume rehearsal
- Dress rehearsal
- Opening night
- Shows
- Concentration

### **3.3 Light projection (GOBOS and light effects)**

### **3.4 Stage lighting on alternative and conventional stages**

### **3.5 Cooperation with other departments that deal with stage technology**

### **3.6 Light and technical production**

### **3.7 Organising the light design department**



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**Practical exercises**

- 4.1 Lighting a conventional, and an alternative stage
- 4.2 Marking
- 4.3 Lighting projections and light effects

**4. Teaching methods:**

Lectures

Practical training

Working at a live event

**Literature:**

- Stage Lighting Handbook: Francis Reed
- Stage Lighting – The Technicians Guide And On-The-Job Reference Tool: Skip Mort
- Light Fantastic: The Art Design of Stage Lighting by Max Keller

**Evaluation of competences:**

The evaluation of knowledge will be done through a practical exercise, which will be a simulation of light technician's tasks in a professional environment.



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**TECHNICIANS AND STAGE MANAGERS (ScenTec)**  
**530810-TEMPUS-1-2012-1-RS-TEMPUS-JPHES**

**Course: Basic course for sound technician**

**Lecturers:**

Branislava Stefanović (UU), Olivera Gračanin (UNS), Dobrivoje Milijanović (UU), Dušan Jovanović (SNP), Pavle Dinulović (UU)

**Number of classes:** 47 x 45min (35 hours)

**ECTS credits:** 2

**Prerequisite courses:** (entrance exam)

**1. Educational objectives:**

**Understanding, connecting and handling a simple audio system.**

**FIRST BUILDING BLOCK – INTRODUCTION**

1. Understanding artistic intentions
  - Understanding the role of sound in theatre (theatre director / sound director on the role of sound in theatre)
  - Contributing to the artistic concept from a technical/practical standpoint
2. Understanding and use of theatre terminology
3. Understanding theatre chain of command
  - Understanding the chain of command in sound department
4. Working ergonomically
  - Applying principles of ergonomics while lifting or carrying heavy and/or bulky loads
  - Asking for help
  - Communicating with colleagues while lifting / moving objects
  - Safely working on heights
  - Using the appropriate personal safety equipment (ear-plugs, safety gloves and shoes etc.)
  - Ensuring objects so they do not fall or roll during activity

**SECOND BLOCK - LOUDSPEAKERS AND LOUDSPEAKER SYSTEMS**



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## (BASIC)

1. Acoustics (basic)
2. Power engineering (basic)
3. Loudspeaker types by construction
4. Loudspeakers by types of preferred use (FOH, monitor, spot)
5. Power amplifiers (basic)

## THIRD BLOCK – MIXING DESKS (BASIC)

1. Analogue electronics (basic)
2. Digital electronics (basic)
3. Analogue mixing desks (basic)
4. Digital mixing desks (basic)
5. Sound sources
6. Audio signals (types and levels)

## FOURTH BLOCK – AUDIO CONNECTIONS AND STANDARDS (BASIC)

1. Analog and digital connections (basic)
2. Analog and digital standards (basic)
3. Cable and connector types

## FIFTH BLOCK – MICROPHONES (BASIC)

1. Microphones – operating principles, types and characteristics
2. Microphones – usage (basic microphone placement for instruments and vocals)

## SIXTH BLOCK – AUDIO SIGNAL PROCESSORS/EFFECTS (BASIC)

1. Audio signal processors (basic)
2. Connecting audio signal processors

## SEVENTH BLOCK – CONNECTING AND OPERATING A SIMPLE SOUND SYSTEM

1. Designing a simple sound system
2. Connecting a simple sound system
3. Operating a simple sound system



4. Troubleshooting a simple sound system
5. HSS – hearing and equipment protection

## **EIGHTH BLOCK – SETTING-UP, CONNECTING AND DISCONNECTING A SIMPLE SOUND SYSTEM / REAL-LIFE ON-STAGE SIMULATION ACORDING TO INSTRUCTIONS**

1. Completing an all-round task within a restricted time-frame (designing, connecting and operating a simple sound system)

### **2. Educational outcomes (acquired competences):**

## **FIRST BUILDING BLOCK – INTRODUCTION**

1. Understanding artistic intentions
  - The role of sound in theatre
  - Working in accordance to artistic intentions
2. Using theatre terminology
3. Theatre chain of command
  - Chain of command in the sound department – working at a specific position within a team
4. Working ergonomically
  - Principles of ergonomics
  - Lifting and carrying equipment
  - Risks of working on heights
  - Regulations relating to working on heights

## **SECOND BLOCK - LOUDSPEAKERS AND LOUDSPEAKER SYSTEMS (BASIC)**

1. Acoustics
  - Understanding of basic acoustic phenomena
2. Power engineering
  - Risks of working with electricity
  - Safely connecting sound equipment to a power supply
3. Loudspeaker types by construction
  - understanding basic principles of functioning
  - active vs. passive
4. Loudspeakers by types of preferred use (FOH, monitor, spot)
  - Choosing speaker types for specific needs
5. Power amplifiers
  - understanding basic principles of functioning



### **THIRD BLOCK – MIXING DESKS (BASIC)**

1. Analogue electronics
  - basic understanding of analogue audio devices
2. Digital electronics
  - basic understanding of digital audio devices
3. Analogue mixing desks
  - understanding analogue mixing desk operating principles and signal flow
  - connecting sound sources to an analogue mixing desk
4. Digital mixing desks
  - understanding digital mixing desk operating principles and signal flow
  - connecting sound sources to a digital mixing desk
5. Sound sources
  - types of sound sources
6. Audio signals
  - types and levels of analogue and digital audio signals
  - A/D and D/A conversion (basic)

### **FOURTH BLOCK – AUDIO CONNECTIONS AND STANDARDS (BASIC)**

1. Analogue and digital connections
  - understanding the basics of connecting analogue and digital audio devices
2. Analogue and digital standards
  - Understanding of the most commonly used interconnection types and standards
3. Cable and connector types
  - recognizing different types of audio and power connectors
  - handling and successfully connecting different types of audio and power connectors

### **FIFTH BLOCK – MICROPHONES (BASIC)**

1. Microphones – understanding operating principles, types and characteristics
  - understanding basic microphone operating principles
  - understanding microphone types by transducing method
  - understanding basic microphone characteristics
2. Microphones – usage



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- basic microphone placement for instruments and vocals

## **SIXTH BLOCK – AUDIO SIGNAL PROCESSORS/EFFECTS (BASIC)**

1. Audio signal processors
  - recognizing different types of audio signal processors
2. Connecting different types of processors
  - following the technical rider / input list
  - connecting audio signal processors into the signal chain

## **SEVENTH BLOCK – CONNECTING AND OPERATING A SIMPLE SOUND SYSTEM**

1. Designing a simple sound system
  - meeting the needs of the event
2. Connecting a simple sound system
  - setting up a simple sound system based on written and/or oral instructions
3. Operating a simple sound system
  - turning on the system
  - operating a simple sound system
  - turning off the system
4. Troubleshooting a simple sound system
  - detecting and resolving technical issues
5. HSS – hearing and equipment protection
  - proper use of ear-plugs
  - proper use of safety gloves, goggles, and other pieces of safety equipment
  - procedures for equipment protection

## **EIGHTH BLOCK – SETTING-UP BASED ON INSTRUCTIONS, CONNECTING AND DISCONNECTING A SIMPLE SOUND SYSTEM / REAL-LIFE ON-STAGE SIMULATION**

1. Completing an all-inclusive task within a restricted time-frame (designing, connecting and operating a simple sound system)
  - setting up the sound system in time for the theatre event
  - building a simple sound system from scratch



**3. Course content/structure:**

**FIRST BUILDING BLOCK – INTRODUCTION**

1. Understanding artistic intentions
  - LECTURE 1: The role of sound in theatre (theatre director / sound director on the role of sound in theatre)
  - EXERCISE 1: Compositions of sound sources and loudspeakers diffusing sound in different ways through the same theatre space.
2. LECTURE 2: Understand and use theatre terminology
3. LECTURE 3: Understand theatre chain of command; chain of command in the sound department
4. LECTURE 4: Principles of ergonomics; asking for help; communicating with colleagues while lifting/moving objects; working safely on heights; using the appropriate personal safety equipment; ensuring no objects can fall or roll over during activity

**SECOND BLOCK - LOUDSPEAKERS AND LOUDSPEAKER SYSTEMS (BASIC)**

1. LECTURE 5: Acoustics
2. LECTURE 6: Power engineering
3. LECTURE 7: Loudspeaker types by construction
4. LECTURE 8: Loudspeakers by types of preferred use (FOH, monitor, spot)
5. LECTURE 9: Power amplifiers
6. EXERCISE 2: Listening; loudspeaker systems – types, placement – two-channel stereo

**THIRD BLOCK – MIXING DESKS (BASIC)**

1. LECTURE 10: Analogue electronics
2. LECTURE 11: Digital electronics
3. LECTURE 12: Analogue mixing desks
4. LECTURE 13: Digital mixing desks
5. LECTURE 14: Sound sources
6. LECTURE 15: Audio signals

**FOURTH BLOCK – AUDIO CONNECTIONS AND STANDARDS (BASIC)**

1. LECTURE 16: Analogue and digital connections
2. LECTURE 17: Analogue and digital standards



3. LECTURE 18: Cable and connector types
4. EXERCISE 3: Connecting different types of audio sources into a mixing desk, and into a simple two-channel stereo loudspeaker system

#### **FIFTH BLOCK – MICROPHONES (BASIC)**

1. LECTURE 19: Microphones – understanding operating principles, types and characteristics
2. LECTURE 20: Microphones – usage (basic microphone placement – instruments and vocals)
3. EXERCISE 4: Basic microphone placement – instruments and vocals

#### **SIXTH BLOCK – AUDIO SIGNAL PROCESSORS/EFFECTS (BASIC)**

1. LECTURE 21: Audio signal processors
2. LECTURE 22: Connecting different types of processors
3. EXERCISE 5: Connecting different types of processors in accordance to technical rider / input list

#### **SEVENTH BLOCK – CONNECTING AND OPERATING A SIMPLE SOUND SYSTEM**

1. LECTURE 23: Designing a simple sound system
2. LECTURE 24: Connecting a simple sound system
3. LECTURE 25: Operating a simple sound system
4. LECTURE 26: Troubleshooting a simple sound system
5. LECTURE 27: HSS – hearing and equipment protection
6. EXERCISE 6: Connecting and operating a simple sound system

#### **EIGHTH BLOCK – SETTING-UP BASED ON INSTRUCTIONS, CONNECTING AND DISCONNECTING A SIMPLE SOUND SYSTEM / REAL-LIFE ON-STAGE SIMULATION**

1. EXERCISE 7: Completing an all-inclusive task within a restricted time-frame (setting up from instructions, connecting and disconnecting a simple sound system)

#### **4. Teaching methods:**

Lectures

Exercises (Practical training)



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Theatre event

Presentations

Discussions

**Literature:**

- Live Sound Fundamentals by Bill Evans (2010)
- Live Sound Reinforcement (Cengage Educational) by Scott Hunter Stark (2005)
- The Sound of Theatre by David Collison
- Theatre Sound by John A. Leonard (2001)
- Sound: A Reader in Theatre Practice by Ross Brown (2010)

**Evaluation of competences:**

Exercise 7 is a timed evaluatory exercise (setting-up based on instructions, connecting, and disconnecting a simple sound system).

Each candidate is provided with the same pieces of equipment, which he/she then must connect into a simple sound system, for a real-life on-stage simulation. If the system is properly designed, connected and operated, we will hear through the connected loudspeakers the name of the new certified Sound Technician for Theatre.



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**DEVELOPMENT AND IMPLEMENTATION OF COURSES FOR THEATRE  
TECHNICIANS AND STAGE MANAGERS (ScenTec)  
530810-TEMPUS-1-2012-1-RS-TEMPUS-JPHES**

**Course:** Advanced course for sound technician

**Lecturers:**

Branislava Stefanović (UU), Olivera Gračanin (UNS), Dobrivoje Milijanović (UU),  
Dušan Jovanović (SNP), Pavle Dinulović (UU)

**Number of classes:** 47 x 45min (35 hours)

**ECTS credits:** 2

**Prerequisite courses:** Basic course, or entrance exam

**1. Educational objectives:**

**Understanding, connecting and handling a complex audio system.**

**Operating the FOH system.**

**Performing duties of the head of theatre sound department.**

**FIRST BUILDING BLOCK – INTRODUCTION**

5. Understanding the role of sound in theatre
  - Understanding the role of sound in theatre (theatre director / sound director on the role of sound in theatre)
  - Contributing to the artistic concept from a technical/practical standpoint
6. Working ergonomically
  - Applying principles of ergonomics while using equipment at FOH position
  - Asking for help
  - Communicating with colleagues while operating
  - Using the appropriate personal safety equipment (ear-plugs, safety gloves and shoes etc.)
  - Ensuring no objects could fall or roll over during activity



## **SECOND BLOCK - LOUDSPEAKERS AND LOUDSPEAKER SYSTEMS (ADVANCED)**

1. Understanding sound diffusion (spacial reproduction of multi-channel sound)
2. Using loudspeakers and loudspeaker clusters to achieve sound diffusion
3. Understanding, setting-up and operating a monitoring system for performers on stage

## **THIRD BLOCK – ELEMENTS OF A COMPLEX AUDIO SYSTEM**

7. Operating analog and digital mixing desks
8. Analog and digital audio signals (advanced)
9. Microphones – usage (advanced microphone placement for instruments and vocals)

## **FOURTH BLOCK – SOUND EDITING AND LIVE SHOW CONTROL SOFTWARE**

3. Basic understanding of sound editing in a DAW enviroment
4. Understading and working with live show control software

## **FIFTH BLOCK – OPERATING A COMPLEX AUDIO SYSTEM**

4. Understanding a complex audio system
5. Audio system engineering (basic)
6. Audio signal processors
  - Setting up the processor to meet creative needs
7. Safety in operating a complex audio system (HSS)
8. Operating a complex audio system

## **SIXTH BLOCK – FOH OPERATING**

3. Understanding complex signal routing
4. Live show mixing for a theatre event
5. Understanding the principles of operating a live show from the FOH position

## **2. Educational outcomes (acquired competences):**



## FIRST BUILDING BLOCK – INTRODUCTION

1. The role of sound in theatre
  - Understanding different approaches to sound design, in relation to genre
  - Working and contributing to the artistic concept of a theatre event
2. Working ergonomically at the FOH position

## SECOND BLOCK - LOUDSPEAKERS AND LOUDSPEAKER SYSTEMS (ADVANCED)

1. Sound diffusion principals (spacial reproduction of multi-channel sound)
2. Achieving sound diffusion through the use of loudspeakers and loudspeaker systems
3. Setting-up and operating a monitoring system for performers on stage

## THIRD BLOCK – ELEMENTS OF A COMPLEX AUDIO SYSTEM

1. Use of analog and digital mixing desks
2. Managing and working with audio signals
3. Advanced microphone use – placement for instruments and vocals; stereo microphone placement

## FOURTH BLOCK – SOUND EDITING AND LIVE SHOW CONTROL SOFTWARE

1. Sound editing in DAW enviroment
2. Specialised software for running live shows

## FIFTH BLOCK – OPERATING A COMPLEX AUDIO SYSTEM

1. Interconnectivity of elements in a complex audio system
2. Basic understanding of audio system engineering
3. Using audio signal processors
4. Safely turning on/off and using elements of a complex audio system (HSS)
5. The principles of operating a complex audio system

## SIXTH BLOCK – FOH OPERATING

1. Managing complex signal routing
2. Managing and mixing multiple inputs to multiple outputs
3. Operating a live show from the FOH position



4.

**3. Course content/structure:**

**FIRST BUILDING BLOCK – INTRODUCTION**

2. Understanding the role of sound in theatre
  - LECTURE 1: The role of sound in theatre (theatre director / sound director on the role of sound in theatre)
  - EXERCISE 1: Achieving sound diffusion by using various loudspeaker setups in the same theatre space. Contributing to the realization of specific styles and genres in theatre, by working on sound in accordance with other elements of the show at hand
3. LECTURE 2: Principles of ergonomics; asking for help; communicating with colleagues while operating; using the appropriate personal safety equipment; ensuring no objects could fall or roll over during activity

**SECOND BLOCK - LOUDSPEAKERS AND LOUDSPEAKER SYSTEMS (ADVANCED)**

7. LECTURE 3: Sound diffusion – spacial reproduction of multi-channel sound
8. EXERCISE 2: Listening exercise – using different loudspeaker setups
9. LECTURE 4: Basic principles of monitoring systems setup for stage performers
10. EXERCISE 3: Setting up and operating a monitoring system for stage performers

**THIRD BLOCK – ELEMENTS OF A COMPLEX AUDIO SYSTEM**

7. LECTURE 5: Operating principles of analogue and digital mixing desks
8. LECTURE 6: Types of audio signals and signal levels – interconnectivity (advanced)
9. LECTURE 7: Advanced (multi-microphone) placement for instruments and vocals for live on-stage performances
10. LECTURE 8: Stereo microphone techniques
11. EXERCISE 4: Connecting a wide array of different sound sources to a mixing desk, and playing them to different loudspeaker systems and configurations



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## **FOURTH BLOCK – SOUND EDITING AND LIVE SHOW CONTROL SOFTWARE**

5. LECTURE 9: Basics of sound editing
6. LECTURE 10: Working in a DAW environment
7. LECTURE 11: Specialized show control software (Qlab)
8. EXERCISE 5: Connecting multiple outputs from Qlab into a mixing desk, and playing them through the loudspeaker system

## **FIFTH BLOCK – OPERATING A COMPLEX AUDIO SYSTEM**

4. LECTURE 12: Elements of a complex audio system
5. LECTURE 13: Basics of audio system engineering (Mijic)
6. LECTURE 14: Types of audio signal processors – processing the spectral, temporal and dynamic aspects of analog and/or digital audio signals
7. LECTURE 15: Health and equipment risks while operating a complex audio system
8. EXERCISE 6: Safely turning on/off a complex audio system, following the correct HSS procedure
9. EXERCISE 7: Operating a complex audio system for a theatre event, following a simple set of instructions, with step-by-step guidance from certified instructors

## **SIXTH BLOCK – OPERATING THE FOH SYSTEM**

5. EXERCISE 8: Managing complex signal routing
6. EXERCISE 9: Managing and mixing multiple inputs to multiple outputs
7. EXERCISE 10: Operating a live show from the FOH position

### **4. Teaching methods:**

Lectures

Exercises (Practical training)

Theatre event

Presentations

Discussions



**Literature:**

- Live Sound Fundamentals by Bill Evans (2010)
- Live Sound Reinforcement (Cengage Educational) by Scott Hunter Stark (2005)
- The Sound of Theatre by David Collison
- Theatre Sound by John A. Leonard (2001)
- Sound: A Reader in Theatre Practice by Ross Brown (2010)

**Evaluation of competences:**

Exercise 10 is an evaluatory exercise (operating a live show from FOH position).

The same simulation of a theatre event is prepared for each candidate. The elements of the simulation are:

1. Three different sound sources (a miked vocal performer, a musician playing an acoustic instrument and a musician playing an electric instrument) are set on stage.
2. The theatre loudspeaker system is made up of a number of separate loudspeakers and loudspeaker clusters.
3. At the candidate's disposal are microphones, a mixing desk and audio signal processors (with all accompanying audio equipment –cables, connectors, stands, etc.)

The task is presented in the form of written instructions, that state the need for:

1. Setting up an appropriate microphone placement for each of the performers on stage.
2. Creating an input/output setup (signal routing) for the theatre event on stage.
3. Providing the correct amount of signal processing to each of the inputs and/or outputs.
4. Creating output groups, and routing them to specified loudspeakers and loudspeaker systems.



**DEVELOPMENT AND IMPLEMENTATION OF COURSES FOR THEATRE  
TECHNICIANS AND STAGE MANAGERS (ScenTec)**  
**530810-TEMPUS-1-2012-1-RS-TEMPUS-JPHES**

**Course:** Stagehand basic course

**Lecturers:**

Romana Boskovic (UNS), Ksenija Markovic (UU), Veljko Stojanovic (UU) Marina Radulj (UniBL), Ljubisa Veljkovic (UNTZ), Rade Bukumirovic (SNP), Milan Leper (NPRS).

**Number of classes:** 34 x 45min (25 hours – 3 days)

**ECTS credits:** 2

**Prerequisite courses:** None

**1. Educational objectives:**

Educational objectives of this course are that technicians and students acquire skills grouped in specific competence units (building blocks):

**FIRST BUILDING BLOCK - INTRODUCTION**

1. Theatre terminology
  - Understanding and using theatre terminology
2. Reading and using technical documentation
  - Understand lines, symbols and layers in technical documentation
  - understand technical riders
  - work in a three-dimensional environment
  - calculate dimensions
3. Working ergonomically
  - Apply ergonomical principles while lifting or carrying heavy or bulky loads
  - Apply appropriate ergonomical measures
  - Search for the optimal position to apply force
  - Use the right equipment to lift or move heavy objects
  - Ask for help
  - Communicate with colleagues while lifting / moving objects



- Work safe on heights
  - Select and use the appropriate equipment to go to a high working post
  - Use the appropriate personal safety equipment
  - Ensure no objects can fall during activity
  - Secure small tools and equipment
  - Ensure underlying floors are free
4. Understanding artistic intentions
- Understand artistic vision of the production
  - Understand the role and meaning of light, sound and set design
5. Communicating during the rehearsal, during set up and in the course of the performance

## **SECOND BLOCK – SETTING UP**

1. Marking data about the ground and stage area plans
  - read and interpret ground plans and understand scale
  - use scale rule
  - ensure that the centre line and the setting line are marked out on the stage
  - mark the positions of lighting and fly bars
  - mark the positions of scenery on stage
  - mark the positions required masking including borders
2. Loading and unloading performance equipment
  - handle equipment safely
  - handle equipment ergonomically
  - be able to recognize possible damage on the equipment
  - pass the information about the damage to the appropriate person
  - be able to use proper gateways and routes
  - use the right equipment to transfer items
3. Loading and unloading element of scenery for the rehearsal
  - set up scenic or temporary elements as required for rehearsal
  - handle and use scenic elements during rehearsal
  - remove elements of scenery to safe storage
  - remove temporary elements of scenery
  - organize rehearsal elements in storage
4. Setting up elements of scenery based on written instructions
  - assemble scenic elements



- attach scenic elements to technical equipment as required
  - hang stage textiles, cloths, gauzes etc. for masking or as elements of scenery
5. Setting up dance and stage floors and stage cloths
- transfer and install floor elements
  - prepare, lay and secure floors and floor coverings

### **THIRD BLOCK - REHEARSHING**

1. Handling scenic elements during rehearsal
  - perform set changes in the required period
  - develop and repeat required set movements
  - load and unload elements of scenery as required by the artistic team
  - read the performance documentation

### **FOURTH BLOCK – PERFORMINCE**

1. Changing elements of scenery during performance
  - perform set changes in the required period
  - repeat required set movements as rehearsed
  - perform quick set changes
  - use documentation during the performance
  - deliver a consistent performance
  - anticipate stage actions
  - react correctly to unexpected situations
  - perform the positioning correctly based on performance requirements
  - respond to cues during performance
2. Observing the show and reacting to technical malfunctions
  - observe the show
  - ensure the technical standards are being maintained
  - anticipate malfunctions
  - react correctly to unexpected situations
  - foresee consequences of reactions
  - keep the general overview
  - communicate about changes
3. Foreseeing and preventing technical problems related to stage equipment



- detect changes in the way the equipment is functioning that could indicate foreseeable problems
  - take preventive action
  - update documentation
4. Foreseeing and preventing technical problems with scenic elements
  - fine-tune the functioning of the set elements
  - detect changes in the functioning of scenic elements and take preventative action
  - update documentation
5. Ensuring the visual quality of the scenery and set dressing
  - prevent damage
  - detect changes in the set image
  - repair damage
  - ensure that the image meets the standards of the artistic concept
  - interpret the artistic concept

## FIFTH BLOCK – CONTROL SYSTEMS

1. Operating a basic motion control system
  - ensure visibility
  - define and set movement limits
  - handle movement parameters
  - run cues independently as well as under instruction
  - communicate changes to relevant people
  - reset cues based on instructions
  - react to unexpected situations
  - act in accordance to possible faults and problems during operation

## SIXTH BLOCK – SELF PLANNING

1. Personal time management
  - estimate the amount of time required to carry out planned activities
  - plan and prioritize work in line with set objectives and organizational policies
  - crosscheck with coworkers planning
  - avoid interruptions
  - make allowance for unforeseen circumstances
  - check progress against planning



- feedback to involved coworkers in case of (foreseen) problems
- 2. document and update your time schedule
- document the time schedule
- use the appropriate planning system
- review the progress and update the time schedule taking into account the consequences of changes
  
- 3. Continuously develop your own practice
  - stay informed about new developments
  - identify personal development needs against the needs of the organization and current work activities
  - identify personal development needs against personal goals
  - get and use feedback from others on personal performance to identify personal development needs
  - set realistic objectives
  - discuss with other people and identify ways of meeting your own development needs
  - keep track of personal development
  - get familiar with new issues, relevant for given tasks
  - search for information to support personal development
  - acquire knowledge and support self development

## **2. Educational outcomes (acquired competences):**

### **FIRST BUILDING BLOCK - INTRODUCTION**

- Using theatre terminology
- theatre spaces
- stage crew
- appropriate terms for tools, equipment, materials
  
- Reading and using technical documentation
- understand drawing methods
- understand symbols for technology in the field
- understand methods of keeping documentation
  
- Working ergonomically
- understand principles of ergonomics
- lift and carry equipment in an ergonomical way
- understand the risks of working on heights
- understand the regulations for working on heights



- Understanding artistic intentions
- understand the role of different elements of theatre technology in the creation of an artistic entity
- Communicating during rehearsal, setting up and performance period
- understand priorities of given information
- demonstrate general cooperation

## SECOND BLOCK – SETTING UP

Marking the data about the ground and stage area plans

- understand scales used in the scenographic drawing
- understand technical resources and limitations

Loading and unloading performance equipment

- transport, load and unload the equipment
- understand the value of the equipment
- understand the logistical environment
- check the equipment
- obtain basic equipment know-how

Loading and unloading the rehearsal set

- understand the technical issues of scenic elements sustainability for rehearsals
- fix temporary scenic elements
- remove and store temporary scenic elements

Setting up elements of scenery based on written instructions

- use the basic specific tools and equipment
- apply appropriate methods of assembling scenic elements
- handle of stage textiles and scenic elements

Setting up dance and stage floors and stage cloths

- set up different types of floors
- use appropriate methods of laying and fixing stage cloths

## THIRD BLOCK - REHEARSHING

Handling scenic elements during rehearsal (also the final set on stage)

Handling and assembling scenery (scenic elements) correctly in rehearsal space or on stage



## FOURTH BLOCK – PERFORMANCE

- Changeover scenic elements during performance
- Use appropriate methods of handling and assembling scenery (scenic elements) during performance
- Observe the show and react to technical malfunctions / functional knowledge
- Understand the technical requirements of the performance
- Understand the technical plot
- Understand the scene changes and cues
- Foresee and prevent technical problems related to stage equipment
- Understand the functioning of the equipment
- Foresee and prevent technical problems related to scenic elements
- Identify potential problems and use appropriate methods to solve them
- Ensure the visual quality of the scenery and set-dressing is up to standards
- Understand the layout and set drawings

## FIFTH BLOCK – CONTROL SYSTEMS

- Operate a basic motion control system
- Understand control systems
- Understand manufacturer's instructions
- Use operational procedures of control systems
- Use appropriate error management procedures

## SIXTH BLOCK – SELF PLANNING

- Use personal time management
- Incorporate organizational policies and set objectives
- Utilize system planning
- Work efficiently and effectively
- Follow procedures to avoid causing any delays in production
- Understand the work, tools, equipment and safety issues
- Document and update your time schedule
- Use basic of time management
- Follow production planning in the work environment
- Continuously develop personal practices



- Identify self development needs
- The possibilities for development
- Plan your personal development
- Follow new developments in relation to the position in the organization
- Use efficient methods for searching relevant and validated information

### **3. Course content/structure: building blocks and units**

#### **FIRST BLOCK – INTRODUCTION**

1. Theatre terminology
2. Reading and using technical documentation
3. Working ergonomically
4. Understanding artistic intentions

#### **SECOND BLOCK – SETTING UP**

5. Marking the data about the ground and stage area plans
6. Loading and unloading performance equipment
7. Loading and unloading the rehearsal set
8. Setting up elements of scenery based on written instructions
9. Setting up dance and stage floors and stage cloths

#### **THIRD BLOCK - REHEARSHING**

10. Handling scenic elements during rehearsal

#### **FOURTH BLOCK – PERFORMINCE**

11. Moving scenic elements during performance
12. Observing the show and reacting to technical malfunctions
13. Foreseeing and preventing technical problems that occure in stage equipment
14. Foreseeing and preventing technical problems that occure in scenic elements
15. Ensuring the visual quality of the scenery and set-dressing

#### **FIFTH BLOCK – CONTROL SYSTEMS**

16. Operate a basic motion control system

#### **SIXTH BLOCK – SELF PLANNING**

17. Personal time management



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18. Documenting and updating the time schedule
19. Continuously developing personal practices

#### **4. Teaching methods:**

Lectures/teaching

Practical training

Presentations

Discussions

Workshops

#### **Literature:**

- Digital Theatre Words, digital publication, by Michael Ramsaur and Jerome Maeckelbergh
- The Backstage Handbook: An Illustrated Almanac of Technical Information by Paul Carter, Broadway Press, 1995.
- Technical Theater for Nontechnical People by Drew Campbell, Allworth Press, 2004.
- Drafting for the Theatre by Dennis Dorn, Southern Illinois University Press, 2012.
- Stage Rigging Handbook, Third Edition by Jay O. Glerum M.A. B.A., Southern Illinois University Press, 2007.

#### **Evaluation of competences:**

1. Practical exercise on stage
2. Focused interview



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**DEVELOPMENT AND IMPLEMENTATION OF COURSES FOR THEATRE  
TECHNICIANS AND STAGE MANAGERS (ScenTec)  
530810-TEMPUS-1-2012-1-RS-TEMPUS-JPHES**

**Course: Head of stage hands**

**Lecturers:**

Romana Boskovic (UNS), Ksenija Markovic (UU), Veljko Stojanovic (UU), Marina Radulj (UniBL), Ljubisa Veljkovic (UNTZ), Rade Bukumirovic (SNP), Milan Leper (NPRS)

**Number of classes: 34 x 45min (25 hours – 3 days)**

**ECTS credits: 2**

**Prerequisites:** Completed stagehand basic course and 1 year experience working in theatre, or 3 years experience working in theatre

**1. Educational objectives:**

Educational objectives of this course are to enable technicians and students to acquire skills grouped in specific competence units(building blocks):

**FIRST BLOCK – INTRODUCTION**

1. Analyzing documentation and organizing resources
  - Analyze documentation
  - list the required equipment
  - deal with in-house stock
  - deal with rental and vendor companies
  - schedule deliveries
  - propose alternatives
  - check feasibility, deadlines, price and technical consequences
  
2. Drawing stage layouts manually
  - interpret scenographical and venue drawings
  - calculate dimensions and scales
  - draw the set layout on the ground plan and section
  - work in scale



3. Drawing stage layouts with CAD system
  - use CAD tools to draw the set layout on the ground plan and section
4. Translating artistic concepts to technical designs.
  - understand artistic language
  - put the script in right context
  - communicate with the artistic team
  - visualize the artistic outcome partly on the basis of the designers description
  - perceive 3D space
  - make a technical sketch taking the artistic plan into consideration
  - interpret sketches
  - suggest technical solutions to reach the artistic goals
  - formulate and present technical solutions within technical and production constraints
  - perceive 3D space
  - present alternative solutions
  - use advanced technical skills
  - interpret sketches
5. Understanding and working in accordance with artistic concepts
  - understand the artistic vision of the production
  - put the script in correct context
  - make technical decisions to meet the artistic standards
  - make artistic / independent decisions, when needed
  - Intervene during the performance respecting the design and the impact on other departments
6. Negotiating contracts
  - Define precise terms and conditions for contracts
  - Ensure facilities can meet the production requirements
  - Negotiate the required tasks and outcomes clearly
  - Schedule all tasks
  - Negotiate fees according to required tasks and outcomes
  - Define expenses or per diems
  - Discuss copyright issues
  - Define procedures for changes in schedule
  - Make sure that the promotion materials and credits are relevant
  - Make sure that proper contracts are signed in time



7. Documenting personal practices
  - Document your work and career
  - Select relevant proof and documentation
  - Ensure the documentation is relevant for the intended purpose
  - Adjust and structure information

## **SECOND BLOCK – MANAGEMENT / HEALTH & SAFETY**

1. Planing for health and safety
  - Write health and safety policies
  - Write effective instructions and procedures
  - Ensure compliance with regulations
  - Implement safety policies
  - Monitor safety policies
  - Conduct an effective safety review
  - Set objectives
  - Plan relevant training for safety practises
  - Assess health and safety training needs
2. Promote health and safety
  - Tell people clearly and accurately about the security procedures
  - Tell people to whom they must report about security risks
  - Tell people what they must do upon detecting security risks
  - Make sure that people follow the workplace security procedures
  - Notice security risks and take action to minimise risk and maximise protection
  - Create opportunities for staff to learn about safety issues
  - Promote safety awareness using various methods
3. Supervising health and safety
  - Develop and manage procedures ensuring the well-being of the staff
  - Lead and manage health and safety procedures
  - Implement the regulations and practice them as part of normal operations
  - Develop safe work procedures
  - Educate new employees
  - Provide guidance
  - Give feedback to senior management on safety issues
  - Train employees on the subject of safety
  - Take appropriate actions in an emergency



- Mentor staff performance in relation to safety issues
- Make time to support others

#### 4. Managing safe working procedures

##### Managing risk assessment

- Ensure staff members are competent for writing risk assessments
- Ensure that resources required for risk assessment are available
- Ensure effective procedures for carrying out risk assessment
- Ensure risk assessments are current and up to date
- Check compliance with legal requirements
- Confirm that industry standards are being met
- Ensure that expert help and guidance is available if needed

##### Managing safety procedures

- Implement systems to ensure that staff members are competent to carry out their work safely
- Ensure that the control measures of risk assessment are being maintained
- Ensure that the required protection for the working area is available
- Ensure that the effective instructions and procedures are available
- Ensure that necessary budgets are available

##### Following safety actions

- Deal promptly with reported risks
- Support and motivate people in their health and safety actions
- Prioritise identified risks for further action
- Ensure that action is taken as a result of an accident report
- Make recommendations for minimizing risk
- Maintain awareness of hazards

#### 5. Implementing safe working practices

- Plan for the protection and the safety of the work area and the environment
- Use the equipment safely
- Identify which workplace health and safety procedures are relevant to the set and location
- Ensure staff members are following organizational procedures



- Install, maintain and remove temporary protection and safety arrangements in the work area
- Select relevant materials, components and equipment

### **THIRD BLOCK – RISK ASSESSMENT**

1. Writing the risk assessment
  - Review current risk assessments and update if required
  - Write risk assessments according to organizational procedures
  - Ensure that resources required for writing risk assessment are available
  - Report risks to the appropriate people in an agreed format
  - Make recommendations for minimizing risks
  - Comply with legal requirements
  - Confirm that industry standards are being met
  - Maintain awareness of hazards
  - Record hazards in line with organizational procedures
  - Identify new hazards resulting from changes in working practices
  - Ensure new hazards are documented
2. Carrying out risk assessments. (Regarding health & safety and work regulations)
  - Clearly define why and where the risk assessment will be carried out
  - Confirm that all the information available to you on statutory health and safety regulations is up-to-date and from reliable sources
  - Recognize your own limitations and seek expert advice and guidance on operational controls when appropriate

### **FOURTH BLOCK - TEAM MANAGEMENT**

1. Lead a team
  - Motivation methods
  - Leadership methods
  - Feedback methods
  - Production process

Supervise a team

- Leadership methods
- Feedback methods
- Management methods



- Production needs
- 2. Asses a team
  - Assessment processes
  - Motivation methods
- 3. Chair a meeting
  - Negotiation methods
  - Conflict handling methods
  - Decision making techniques
  - Time management techniques
- 4. Monitor workload
  - Desired outcomes of the production
  - Different operations of the production
  - Staff legislation
  - Organisational procedures
- 5. Short term volunteers
  - Organisational structure
  - Organisational procedures
  - Health and safety procedures
- 6. Support volunteers during volunteering activities
  - Monitor volunteering activities
  - Identify problems when they occur
  - Identify the implications of the problem
  - Communicate these to those involved
  - Adjust communication for the target group
  - Feedback to relevant departments
  - Provide temporary support to overcome problems

## FIFTH BLOCK – PLANNING

1. Planning teamwork
  - Identify tasks to be executed
  - Identify people's skills and competences
  - Make a list the deadlines



- Take into account activities of other teams that influence your team
  - Plan workflow
  - Match tasks and skills
  - Produce a clear time strategy for realistic delivery within budget and time constraints
  - Schedule activities
  - Ensure schedule is realistic and achievable
  - Produce clear schedules that can be easily monitored and understood
2. Scheduling production activities
- Update production timeline
  - Coordinate scheduling of staff
  - Coordinate scheduling of resources
  - Coordinate scheduling of facilities
  - Coordinate scheduling of transportation
  - Combine separate schedules to a master production schedule
  - Identify conflicting elements
  - Ensure the production schedule is manageable and achievable
  - Communicate information accurately and promptly to the appropriate people
  - Confirm the schedule activities with the appropriate people
  - Filter information according to recipients needs
  - Ensure all information is understood
  - Communicate new production schedules at appropriate intervals and amend them in accordance with changes in key variables
  - Take the feedback into account while making revisions
  - Maintain all documentation related to the production schedule accurately and in accordance with defined procedures
3. Scheduling staff efforts
- Update the production timeline
  - Check for the availability
  - Schedule the workload according to production needs, known constraints and desired outcomes
  - Ensure that the production schedule is manageable and achievable
  - Ensure that the staff schedule is within legal limits
  - Confirm schedules with the relevant people
  - Communicate information accurately and promptly to the relevant people
  - Filter information according to recipients needs
  - Ensure all information is understood
  - Communicate new production schedules at appropriate intervals and



- adjust them in accordance with changes in key variables
  - Take feedback into account while making revisions
  - Maintain all documentation related to the production schedule accurately and in accordance with defined procedures
4. Planning stage operations to be used during a performance
- Analyse the need for technical and performer cues
  - Organise the sequence of every stage action during the performance
  - Estimate the time needed to perform each operation
  - Estimate the number of technicians needed to perform each operation
  - Crosscheck with other departments
  - Document the cues and actions
  - Feedback to others involved in case of unforeseen difficulties
5. Manage storage and transport operations
- Communicate with different departments
  - Supervise transport actions
  - Work according to the transport plan
  - Check that the work is done as planned
  - Resolve problems related to equipment requirements and storage space

## SIXTH BLOCK – SETTING UP, REHEARSHING, PERFORMANCE

1. Installing and testing technical stage equipment
  - install winches, motors and fixings
  - install wagons and traps
  - test equipment according to specifications and manufacturer's instructions
  - put warning signs and lights as required and secure the stage area
2. Coordinating pre-performance checks

### Planning pre-performance checks

- Gather information from different departments
- Define the needs for pre-performance checks
- Analyse risks occurring during pre-performance checks
- Define the proper order to run the pre-performance check
- Prepare pre-performance check lists and reports
- Write effective instructions and procedures



### Coordinating pre-performance checks

- Instruct people responsible for parts of the pre-performance check
- Ensure checks are carried out accurately
- Gather feedback after the pre-performance check
- Assess the impact of detected problems on the performance run
- Report detected problems to the relevant person in the production
- Take relevant action to resolve detected problems

### **3. Operating the motion control system during performance**

#### Run movements

- ensure visibility
- read performance documentation and understand written instructions
- respond to visual or audio cues
- run independently as well as under instruction
- anticipate stage actions
- react accurately to unexpected situations
- correct movements based on performance requirements
- take action in relation to faults and problems during operation
- deliver consistent performance

### **4. Observing the show and maintaining artistic quality**

#### Observing the show

- observe the show
- ensure the artistic standards are being maintained
- understand the artistic vision of the production

#### Foreseeing and reacting to malfunctions

- anticipate malfunctions
- react accurately to unexpected situations
- foresee the consequences of reactions
- keep overview



- communicate changes

Giving feedback to company staff

- anticipate malfunctions
  - react appropriately to unexpected situations
  - foresee the consequences of reactions
  - keep overview
  - communicate changes
- 5.** Maintaining health and safety during a performance.  
  - Maintain safety standards
  - Understand production requirements in relation to risks
  - Solve problems under stress
  - Inform staff on their responsibilities
  - Ensure pre/performance checks are carried out

**2. Educational outcomes (acquired knowledge):**

**FIRST BLOCK – INTRODUCTION**

1. Define the quantity of equipment based on ground plans and written documentation
  - Understand equipment issues
  - Provide equipment and consumable materials
  - Get informed about the in-house stock and what's available in the market
2. Drawing the set manually
  - Understand the intentions of the set designer
  - Line, symbol and layer systems for building and scenographic drawings
3. Using a computer-aided design system
  - understanding CAD interface
  - use CAD systems to draw the set layout based on the ground plan and sections
4. Translate artistic concepts to technical designs.
  - Understand artistic intentions
  - Communicate with the artistic team



- Use appropriate techniques and various technical solutions
  - Understand the artistic and technical terminology
  - Suggest technical solutions to reach the artistic goal
  - Understand the difference between artistic and technical planning
  - Understand the artistic and technical processes
  - Obtain technical competences
  - Follow technical developments
5. Understanding and working in accordance with artistic concepts
- Basic knowledge of theatre history
  - Basic knowledge of dramaturgy
  - Understand the aesthetics of the design
  - Understand the script
  - Understand the role of other elements of the production
6. Negotiating contracts
- Legal issues behind contracts
  - Production requirements
  - Industry practices
  - Occupation related collective agreement
7. Documenting personal practices
- Adjust them according to the recipient

## **SECOND BLOCK – MANAGEMENT / HEALTH & SAFETY**

1. Planning health and safety
  - Methods of health and safety management
  - Legislation
  - Legal responsibilities
  - Responsibilities within your job role
  - Commonly used work practices
  - Channels of communication
2. Promoting health and safety
  - Define or adjust organisation's procedures for handling safety issues
  - Obtain external advice and help
  - Recognise security risks
  - Deal with security risks
  - Communicate



- Develop marketing techniques
- 3. Supervising health and safety
  - Health and safety regulations and instructions
  - Define which actions are to be taken in case of an emergency
  - Procedures for an induction process
  - Safe use of hazardous substances
  - Methods of recording accidents
  - Methods for effective support
  - Stress management
- 4. Managing safe working procedures

#### Managing risk assessments

- Methods of writing risk assessments
- Effective communication methods
- Health and safety risks in live performances
- Methods of reducing risks
- Legal requirements
- Industry standards
- Purpose and importance of carrying out risk assessments

#### Managing safety procedures

- Best practices related to safety
- Required protection equipment
- Information on regulations related to buildings
- Methods of writing safety procedures
- Regulations relating to waste disposal
- Relevant legislation
- Methods of identifying risks

#### Follow up safety actions

- Methods of reporting accidents
- Motivation methods
- Type of hazards that are most likely to cause harm
- Methods for minimizing risks



5. Implementing safe working practices
  - Best practice for your area of work
  - Appropriate personal protective equipment (PPE)
  - Barriers and temporary structures
  - Information on regulations governing buildings
  - Correct disposal of waste materials
  - Work in safe environment
  - Safe tool handling
  - Health and Safety requirements and responsibilities
  - Hazards in the context of the working environment and reporting procedures
  - Procedures for reporting and dealing with hazards
  - Potential security risks
  - Methods of dealing with unauthorized persons
  - Fire and emergency precautions and procedures

### **THIRD BLOCK – RISK ASSESSMENT**

1. Writing risk assessments
  - Purpose, legal implications and importance of writing risk assessments
  - Methods of identifying risks
  - Relevant documentation
  - Organizational procedures
  - Type of hazards that are most likely to cause harm
  - Methods of reducing risks
  - Health and safety risks in live performances
2. Carrying out risk assessments (Regarding health & safety and work regulations)
  - Apply risk assessment to all aspects of the organisation
  - Procedures for carrying out risk assessments
  - Finding expert advice and guidance
  - Areas and persons that the assessment relates to
  - Work activities of people at the workplace where the risk assessment is carried out
  - Identifying how health and safety risks may affect staff and the precautions to be taken
  - Effective communication methods



## FOURTH BLOCK - TEAM MANAGEMENT

1. Leading a team
  - Explain to team members about their work activities in sufficient detail
  - Define what is expected of each member of the team
  - Motivate people effectively
  - Monitor activities in relation to schedules
  - Take corrective actions when problems occur regarding maintaining schedules
  - Adapt leadership method in relation to different team members
  - Give supportive feedback
  - Supervise the work of team members
  - Check the work against expected results
  - Take corrective action when problems occur with the results
  - Give supportive feedback
  - Recommend how team members could improve their work
2. Assess a team
  - Gather the information you need
  - Evaluate the information
  - Assess the actions of the individual team members
  - Assess the team work process
  - Give supportive feedback
  - Ensure feedback is based on an objective assessment
  - Ensure feedback is adapted to the individual
  - Ensure feedback is understood
  - Let team members respond to feedback
  - Recommend how team members could improve their work
3. Chair a meeting
  - Coordinate the agenda
  - Prioritize subjects
  - Set clear time limits for each subject
  - Provide an equal chance for every opinion
  - Moderate between opinions
  - Avoid chaotic discussion
  - Formulate conclusions
  - Take decisions
  - Ensure all participants understand the conclusions
  - Ensure all subjects on the agenda are dealt with



4. Monitor workload
  - Check production schedule
  - Collect working hours report
  - Confirm that workload is within legal limits
  - Compare working hours report against the production schedule
  - Extrapolate the results for future actions
  - Propose corrections when required
  - Document production workload
  - Communicate with relevant departments
5. Short-term volunteers
  - Explain the purpose and value of the volunteers work
  - Motivate to achieve high standards
  - Encourage and support volunteers to take ownership of the work
  - Encourage and support volunteers to meet their diverse needs, abilities and potential
  - Introduce the organizational structure
  - Introduce the organizational procedures
  - Introduce safety procedures
  - Agree on individual responsibilities
  - Agree on working methods
  - Agree on communication procedures
  - Adapt on communication to the receiver
6. Support volunteers during volunteering activities
  - Volunteer needs for support
  - Limitations of voluntary work

## FIFTH BLOCK – PLANNING

1. Plan teamwork
  - The production process
  - Planning methods
  - Time management methods
2. Schedule production activities
  - Desired outputs of the production
  - The main roles and responsibilities of others
  - Planned staff



- Organisational procedures
  - Production systems and operations
  - Information handling
  - Scheduling methods
3. Scheduled staff
- Desired outputs of the production
  - The main roles and responsibilities of others
  - Planned staff
  - Staff legislation
  - Production systems and operations
  - Information handling
  - Scheduling methods
4. Plan stage operations to be used during a performance
- The production needs
  - Technical solutions and limitations
  - Organisational policies
  - Planning systems
  - Cueing methods
5. Manage storage and transport operations.
- Storage systems and procedures
  - Storage area
  - Transport limitations
  - Specific needs and/or limitations of transport
  - Specific needs for sequencing transport
  - Specific needs for sequencing storage

## **SIXTH BLOCK – SETTING UP, REHEARSHING, PERFORMINCE**

1. Installing and testing technical stage equipment
  - Basic knowledge of mechanics and technical equipment
  - Understanding legislation and safety regulations
  - Methods of installation
2. Coordinating pre-performance checks

### Planning pre-performance checks

- Best practices in different areas of work
- Pre-performance procedures



Coordinate pre-performance checks

- Best practice in different areas of work
- Pre-performance procedures
- 3. Operating motion control systems during performance
  - Run motion
  - Operational procedures of control systems
  - Error fixing procedures
  - Awareness of artistic concepts
- 4. Observing the performance and maintaining artistic quality

Observing the show

- Understand the artistic vision
- Understand the plot
- Understand the actions and cues

Forseeing and reacting to malfunctions

- Understand the artistic vision
- Understand the plot
- Understand the actions and cues

Giving feedback to the company

- Understand the scenery and changeovers
  - Understand the technical plot
  - Understand the scene changes and cues
5. Maintaining health and safety during a performance
  - Manage risks during performance
  - Different techniques and safe use
  - Risks
  - Company procedures
  - Evacuation procedures

**3. Course content/structure:**



## **FIRST BLOCK – INTRODUCTION**

1. Analyzing documentation and organizing resources.
2. Drawing stage layouts manually.
3. Drawing stage layouts using a CAD system.
4. Translating artistic concepts to technical designs.
5. Understanding and working in accordance to artistic concepts.
6. Negotiate contracts.
7. Document personal practices.

## **SECOND BLOCK – MANAGEMENT / HEALTH & SAFETY**

1. Planning health and safety
2. Promoting health and safety
3. Supervising health and safety
4. Managing safe working procedures
5. Implementing safe working practices

## **THIRD BLOCK – RISK ASSESSMENT**

1. Writing risk assessments
2. Carrying out risk assessment (Regarding health & safety and work regulations).

## **FOURTH BLOCK - TEAM MANAGEMENT**

1. Leading a team
2. Assessing a team
3. Chairing a meeting
4. Monitoring workload
5. Short-term volunteers
6. Supporting volunteers during volunteering activities

## **FIFTH BLOCK – PLANNING**

1. Planning teamwork
2. Scheduling production activities
3. Scheduling staff
4. Planning stage operations to be used during a performance
5. Managing storage and transport operations



## SIXTH BLOCK – SETTING UP, REHEARSHING, PERFORMINCE

1. Installing and testing technical stage equipment.
2. Coordinating pre-performance checks.
3. Operating motion control systems during the performance.
4. Observing the show and maintaining the artistic quality.
5. Maintaining health and safety during the performance.

### 4. Teaching methods:

Lectures/teaching

Practical training

Presentations

Discussions

Workshops

### Literature:

- Digital Theatre Words, digital publication, by Michael Ramsaur and Jerome Maeckelbergh
- The Backstage Handbook: An Illustrated Almanac of Technical Information by Paul Carter, Broadway Press, 1995.
- Technical Theater for Nontechnical People by Drew Campbell, Allworth Press, 2004.
- Drafting for the Theatre by Dennis Dorn, Southern Illinois University Press, 2012.
- Stage Rigging Handbook, Third Edition by Jay O. Glerum M.A. B.A., Southern Illinois University Press, 2007.
- Structural Design for the Stage by Alys Holden, Focal Press, 1999.
- Technical Design Solutions for Theatre: The Technical Brief Collection Volume 1 by Ben Sammler, Focal Press, 2002.
- Technical Design Solutions for Theatre: The Technical Brief Collection Volume 2 by Ben Sammler, Focal Press, 2012.
- Technical Design Solutions for Theatre Volume 3 by Ben Sammler, Focal Press, 2013.



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**Knowledge evaluation:**

1. Written examination
2. Focused interview

**LITERATURA**

[1] [http://www.scen.uns.ac.rs/?page\\_id=1367](http://www.scen.uns.ac.rs/?page_id=1367)

[2] <http://www.scentec.uns.ac.rs/documents/>

[3] [http://eacea.ec.europa.eu/lip/index\\_en.php](http://eacea.ec.europa.eu/lip/index_en.php)

[4] Evropski Parlament, Vijeće, Preporuka o uspostavljanju Evropskog kvalifikacijskog okvira za cjeloživotno učenje (EKO), 2008; [http://eurlex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008H0506\(01\)&from=EN](http://eurlex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008H0506(01)&from=EN)

[5] Akcioni plan za izradu i provedbu Kvalifikacijskog okvira u BiH 2014-2020, Službeni glasnik 28/15.

[6] Preporuka Vijeća EU o vrednovanju neformalnog i informalnog učenja, 2012;<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:398:0005:EN:PDF>



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