Ευρωπαϊκό Πανεπιστήμιο Κύπρου

LAUREATE INTERNATIONAL UNIVERSITIES

ΣΧΟΛΗ ΘΕΤΙΚΩΝ ΕΠΙΣΤΗΜΩΝ

ΠΑΡΑΤΗΡΗΣΕΙΣ

για την Έκθεση της Επιτροπής Εξωτερικής Αξιολόγησης του Φορέα Διασφάλισης και Πιστοποίησης της Ποιότητας της Ανώτερης Εκπαίδευσης

ΓΙΑ ΤΟ ΠΡΟΓΡΑΜΜΑ

«BIOMEDICAL SCIENCES (B.Sc.)»

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Η Σχολή Θετικών Επιστημών του Ευρωπαϊκού Πανεπιστημίου Κύπρου ευχαριστεί θερμά τον Φορέα ΔΙ.Π.Α.Ε. και την Επιτροπή Εξωτερικής Αξιολόγησης (Ε.Ε.Α.) για την αξιολόγηση του προπτυχιακού μας προγράμματος **Biomedical Sciences (B.Sc.).** Τα εποικοδομητικά σχόλια και οι σημαντικές εισηγήσεις της Επιτροπής είναι για μας εργαλείο βελτίωσης και αναβάθμισης του προγράμματος. Έχουμε λάβει πολύ σοβαρά υπόψη **όλες** τις εισηγήσεις που περιλαμβάνονταν στην έκθεσή της Επιτροπής, τις οποίες και υλοποιήσαμε, ως εξής:

Γενικά Σχόλια:

Εισήγηση (Ε.Ε.Α.):

Το Πρόγραμμα «Βιοϊατρικές Επιστήμες» περιέχει τη συμβατική θεματολογία βιοϊατρικής εκπαίδευσης καθώς και τα απαραίτητα μαθήματα γενικής εκπαίδευσης. Η Επιτροπή κρίνει ότι τόσο το περιεχόμενο όσο η δομή του προσφερόμενου προγράμματος σπουδών και η φοιτητική μέριμνα, είναι ικανοποιητικά και συγκρίσιμα με άλλα συναφή προγράμματα προπτυχιακών σπουδών άλλων Πανεπιστημίων. Εισηγείται δύο βασικά μέτρα βελτίωσης, ήτοι:
(1) την εισαγωγή στο πρόγραμμα σύγχρονων θεμάτων βιοϊατρικής εκπαίδευσης με αντικείμενα όπως η Αναγεννητική Ιατρική, η Εξατομικευμένη Ιατρική, η εισαγωγή στην Βιοπληροφορική, η Συστημική Βιοϊατρική, η Βιοϊατρική Βιοτεχνολογία. Σε αυτό το πλαίσιο πρέπει να εμπλουτιστεί ο προσφερόμενος κατάλογος μαθημάτων επιλογής.

Απάντηση:

Το σχόλιο των αξιολογητών είναι όντως πολύ εποικοδομητικό. Ακολουθώντας τις συστάσεις τους έχουμε προσθέσει τα προτεινόμενα μαθήματα στον κατάλογο των μαθημάτων που περιλαμβάνονται στο πρόγραμμα. Συγκεκριμένα, τα μαθήματα:
Αναγεννητική Ιατρική, Εισαγωγή στη Βιοπληροφορική, Συστημική Βιοϊατρική και Βιοτεχνολογία** έχουν προστεθεί μέσα στον κατάλογο με τα υποχρεωτικά μαθήματα του προγράμματος. Το μάθημα της **Εξατομικευμένης Ιατρικής** έχει προστεθεί στον κατάλογο με τα μαθήματα επιλογής, Συνολικά προσφέρονται πλέον 6 μαθήματα επιλογής, όπως φαίνεται στο τροποποιημένο curriculum **(Παράρτημα Ι).

Εισήγηση (Ε.Ε.Α.):

Συμμετοχή των φοιτητών σε εργαστηριακό ερευνητικό πρόγραμμα εντός του πανεπιστημίου ή σε συνεργασία με άλλους φορείς στα πλαίσια του Final Year Project II.

Απάντηση:

*Το ΕΠΚ, λαμβάνοντας υπόψη τις προτάσεις προς βελτίωση που έγιναν από την Ε.Ε.Α., τροποποίησε το σχετικό syllabus (BMS421) του Final Year Project II ώστε να ενισχυθεί η σημασία της εμπλοκής των φοιτητών σε ερευνητικό πρόγραμμα στα πλαίσια της διπλωματικής τους εργασίας (Final Year Project II) **(Βλέπε τροποποιημένα Syllabi Παράρτημα ΙΙ).*** Η ενασχόληση των φοιτητών θα περιλαμβάνει πειράματα *in vitro, in vivo*

ή *in silico* και θα γίνεται στα εργαστήρια του ΕΠΚ ή όπου απαιτείται σε συνεργαζόμενους φορείς **(Βλέπε τροποποιημένα Syllabi Παράρτημα ΙΙ).** Ωστόσο, λαμβάνοντας υπόψη και τη διεθνή πρακτική που αφορά την επιλογή του Final year project (όπως συμβαίνει σε πανεπιστήμια όπως το Kent University, το University of Sussex, το University of Manchester κ.ά.), ο φοιτητής θα διατηρεί το δικαίωμα να μπορεί να επιλέξει τον τύπο της διπλωματικής εργασίας που θα αναλάβει, με βάση τα ενδιαφέροντα και τις δυνατότητές του. Η διπλωματική επομένως θα μπορεί να είναι είτε Βιβλιογραφική ανασκόπηση και ανάλυση δεδομένων ή εργαστηριακή διπλωματική. Αυτή η προσέγγιση θα επιτρέψει επίσης σε φοιτητές που ανήκουν στην κατηγορία των ατόμων με ειδικές ανάγκες και δεν θα μπορούσαν διαφορετικά να διεκπεραιώσουν μια εργαστηριακή εργασία να ολοκληρώσουν τη φοίτησή τους εξασφαλίζοντάς τους δίκαιη μεταχείριση**.**

Εισήγηση (Ε.Ε.Α.):

Η Επιτροπή θεωρεί ότι αυτές οι αλλαγές συνεισφέρουν σημαντικά στην ανταγωνιστικότητα και στη διαφοροποίηση του προγράμματος του ΕΠΚ από συναφή προγράμματα σπουδών άλλων ιδρυμάτων, βελτιώνουν την παροχή ποιοτικής και αναβαθμισμένης εκπαίδευσης και προάγουν την ανταγωνιστικότητα του ΕΠΚ σε εκπαιδευτικό και ερευνητικό επίπεδο. Για αυτό το σκοπό, είναι απαραίτητος ο εμπλουτισμός του διδακτικού προσωπικού με επισκέπτες καθηγητές μερικής απασχόλησης που θα διδάξουν αυτά τα αντικείμενα ως κατ' επιλογήν ενότητες.

Απάντηση:

*Το ΕΠΚ έχει υψηλά κριτήρια για την επιλογή του διδακτικού προσωπικού και φροντίζει τόσο οι μόνιμοι όσο και οι επισκέπτες καθηγητές μερικής απασχόλησης να έχουν επαρκή εξειδίκευση σχετική με το αντικείμενο που πρόκειται να διδάξουν. Αυτό συμβαίνει και με το υφιστάμενο πρόγραμμα. Επιπρόσθετα, πρέπει να επισημανθεί ότι το ΕΠΚ έχει ήδη προκηρύξει πρόσθετη θέση μόνιμου μέλους ΔΕΠ με αντικείμενο τη Βιοϊατρική χωρίς αυτό να αποκλείει την πρόσληψη επιπλέον προσωπικού ως επισκέπτες καθηγητές, όπως προτείνει η επιτροπή αξιολόγησης (**βλ. προκήρυξη στο Παράρτημα ΙΙΙ).***

Εισήγηση (Ε.Ε.Α.):

Η προτεινόμενη εργαστηριακή ενασχόληση των επι πτυχίω φοιτητών σε ερευνητικά προγράμματα θα αναβάθμιζε τις πρακτικές τους δεξιότητες, θα τόνωνε τις ερευνητικές δραστηριότητες του ΕΠΚ και θα διευκόλυνε συνεργασίες του ΕΠΚ με άλλα ακαδημαϊκά ιδρύματα.

Απάντηση:

*Αυτό έχει διευθετηθεί όπως περιγράφεται παραπάνω και πλέον το μάθημα BMS421 περιλαμβάνει πρακτική εξάσκηση και ενασχόληση με μια ερευνητική μελέτη στα πλαίσια της εκπόνησης της διπλωματικής εργασίας. **(Βλέπε τροποποιημένα Syllabi Παράρτημα ΙΙ).***

Εισήγηση (Ε.Ε.Α.):

Η Επιτροπή αξιολόγησης θεωρεί ότι σε αυτό θα συνέβαλε η αύξηση των κονδυλίων της εσωτερικής χρηματοδότησης ερευνητικών δραστηριοτήτων και η ενθάρρυνση εντατικότερης συμμετοχής των διδασκόντων σε ανταγωνιστικά ερευνητικά προγράμματα ως μέσο ενεργοποίησης του άξονα «εκπαίδευση-έρευνα-ανταγωνιστικότητα». Η σύνδεση καλής έρευνας με ποιοτικό μάθημα και διδασκαλία είναι ουσιαστικό χαρακτηριστικό των καλών Πανεπιστημίων. Το ΕΠΚ θα πρέπει να εντείνει τη διασύνδεση του με άλλα ανώτερα Ιδρύματα και ερευνητικά κέντρα της Κύπρου, πχ. με από κοινού διαλέξεις, οργάνωση ημερίδων, συμμετοχή σε ερευνητικά θέματα, προσκλήσεις διεθνούς φήμης ομιλητών, κλπ. Το ίδιο βεβαίως, ισχύει και για συνεργασίες και μνημόνια συνεργασίας με συγκεκριμένο και αμοιβαίως επωφελές αντικείμενο, με Ιδρύματα του εξωτερικού.

Απάντηση:

Αυτό το σχόλιο των αξιολογητών είναι ιδιαίτερα καίριο και σίγουρα βοηθά την περαιτέρω ανάπτυξη του ΕΠΚ. Αυτό συμβαίνει ήδη με τα υφιστάμενα προγράμματα όπως θα συνεχίσει να συμβαίνει και με το νέο πρόγραμμα Βιοϊατρικών Επιστημών.

Εισήγηση (Ε.Ε.Α.):

Τα δίδακτρα που καταβάλλονται από τους φοιτητές είναι συγκρίσιμα με αυτά αντίστοιχων ιδιωτικών Πανεπιστημίων στην Κύπρο και άλλων Πανεπιστημίων στην Ευρώπη. Με αυτό ως δεδομένο, αν συγκρίνει κανείς τις μαθησιακές δυνατότητες και το βάθος σε προσωπικό και επιστημονικό αντικείμενο διδασκαλίας που προσφέρουν παραδοσιακά καλά ευρωπαϊκά Πανεπιστήμια, θα αντιληφθεί τις σημαντικές διαφορές που υπάρχουν. Για να είναι ανταγωνιστικό σε διεθνές επίπεδο το ΕΠΚ θα πρέπει να μεριμνήσει ώστε σταδιακά να μειώνεται αυτό το χάσμα.

Απάντηση:

Τα δίδακτρα είναι τα εκάστοτε εγκεκριμένα από το Υπουργείο Παιδείας και Πολιτισμού.

Εισήγηση (Ε.Ε.Α.):

Η Επιτροπή αξιολόγησης θεωρεί ότι ο Συντονιστής ενός νέου Προγράμματος με κομβικό ρόλο στη Σχολή Θετικών Επιστημών του Πανεπιστημίου, ως προς την υλοποίηση, τη διασφάλιση της ποιότητας και την επιτυχία του προγράμματος, πρέπει να είναι στέλεχος με μακρόχρονη ακαδημαϊκή εμπειρία. Με αυτό συνάδει η ανάθεση αυτού του ρόλου σε πεπειραμένο μέλος του ΕΠΚ από τη δεξαμενή των δύο ανώτερων βαθμίδων ΔΕΠ.

Απάντηση:

Ο Δρ. Ζαραβίνος έχει οριστεί ως ο συντονιστής για το πρόγραμμα Βιοϊατρικών Επιστημών, ο οποίος αν και νεαρός στην ηλικία έχει εξαίρετο βιογραφικό, μεγάλη ερευνητική εμπειρία και δημοσιευμένο έργο με πάνω από 1000 αναφορές και h index 20 (Scopus). Σύμφωνα με την έως τώρα αποδεκτή πρακτική μπορεί να μπει συντονιστής και κάποιος καθηγητής

χαμηλότερης βαθμίδας αρκεί να υπάρχει και ένας ανώτερος ως συ-συντονιστής. Ακολουθώντας αυτή την τακτική, ο κ.Ζαραβίνος θα συντονίζει το πρόγραμμα με συν-συντονισμό από τη Δρ.Μαίρη Ελευθεριάδου, αναπληρώτρια καθηγήτρια του ΕΠΚ.

Ειδικά σχόλια:

Εισήγηση (Ε.Ε.Α.):

Σε ορισμένα μαθήματα διαπιστώθηκε σχετικά περιορισμένη συνάφεια του ακαδημαϊκού προφίλ των διδασκόντων (όπως τεκμαίρεται από το βιογραφικό τους σημείωμα) με το περιεχόμενο του μαθήματος που καλούνται να διδάξουν. Η Επιτροπή αξιολόγησης αντιλαμβάνεται τη δυσκολία να εξευρεθούν σε ορισμένες περιπτώσεις οι πλέον αρμόζοντες διδάσκοντες. Επειδή όμως αυτό το γεγονός μπορεί να συμβάλλει αρνητικά κατά τη διαδικασία αξιολόγησης των ποιοτικών χαρακτηριστικών του αντίστοιχου μαθήματος, η Σχολή Θετικών Επιστημών θα πρέπει να μεριμνήσει ώστε σταδιακά να αρθούν αυτές οι αναντιστοιχίες.

Απάντηση:

Το ΕΠΚ αντιλαμβάνεται την αναγκαιότητα ύπαρξης συνάφειας μεταξύ του ακαδημαϊκού προφίλ των διδασκόντων και του περιεχομένου του μαθήματος που καλούνται να διδάξουν και για αυτό το λόγο λαμβάνει πάντοτε σοβαρά υπόψη την επιστημονική κατάρτιση και εξειδίκευση των διδασκόντων προσπαθώντας να αξιοποιήσει σωστά και κατάλληλα τα προσόντα τους. Αυτό είναι πάγια τακτική του πανεπιστημίου την οποία και θα συνεχίσει να εξασκεί για την εύρεση του πλέον κατάλληλου διδακτικού προσωπικού και για το νέο πρόγραμμα σπουδών των Βιοϊατρικών Επιστημών. Μάλιστα, το ΕΠΚ έχει ήδη προκηρύξει μια θέση μόνιμου μέλους ΔΕΠ με ειδικότητα «Βιοϊατρική» ***(βλ. Προκήρυξη στο Παράρτημα ΙΙΙ)****.*

Εισήγηση (Ε.Ε.Α.):

Σε μαθήματα, όπως τα BMS121, BMS122, BMS123, BMS214, BMS221 και BMS322 πρέπει να περιγραφεί στον Οδηγό Σπουδών, το περιεχόμενο των εργαστηριακών ασκήσεων.

Απάντηση:

Το περιεχόμενο των εργαστηριακών ασκήσεων έχει προστεθεί και στα έξι (6) μαθήματα που επισήμανε η επιτροπή αξιολόγησης ***(Βλέπε τροποποιημένα Syllabi Παράρτημα ΙΙ).***

Εισήγηση (Ε.Ε.Α.):

Επίσης, το BMS311 (Εμβρυολογία) θα μπορούσε να είναι μάθημα του 4ου εξαμήνου ώστε να υπάρχει ακολουθία με τα συναφή μαθήματα της Ανατομίας και Ιστολογίας.

Απάντηση:

Η πρόταση της επιτροπής αξιολόγησης έχει εξεταστεί λαμβάνοντας υπόψη τη σειρά των μαθημάτων σε συνάρτηση με το βαθμό δυσκολίας τους για κάθε εξάμηνο και κρίνεται απαραίτητη η διατήρηση του μαθήματος της Αναπτυξιακής Βιολογίας & Εμβρυολογίας στο 5ο εξάμηνο και της Ιστολογίας στο 4ο ως έχουν.

Εισήγηση (Ε.Ε.Α.):

Τα μαθήματα BMS412 και BMS413 είναι εξειδικευμένα και αρμόζουν περισσότερο ως μαθήματα επιλογής.

Απάντηση:

Το μάθημα της Καρδιοπνευμονικής Βιολογίας (BMS412 Cardiopulmonary Biology) έχει αφαιρεθεί από τον οδηγό σπουδών σύμφωνα με την πρόταση της επιτροπής αξιολόγησης. Ωστόσο, το μάθημα Βιολογίας του Καρκίνου (BMS413 Cancer Biology) έχει παραμείνει καθώς κρίνεται ότι είναι πολύ επίκαιρο, εφόσον το μεγαλύτερο ποσοστό της έρευνας στις βιοϊατρικές επιστήμες γίνεται στον τομέα του καρκίνου και επομένως θα προσφέρει πολλά εφόδια στους φοιτητές για τη μελλοντική επιστημονική τους εξέλιξη. Επιπλέον, το προσωπικό του τμήματος Επιστημών Ζωής του πανεπιστημίου είναι σε άριστη θέση να υποστηρίξει ένα τέτοιο μάθημα.

Εισήγηση (Ε.Ε.Α.):

Τα προσδοκώμενα μαθησιακά αποτελέσματα (σελ. 52 της Αίτησης) σε μερικές περιπτώσεις εμφανίζονται υπεραπλουστευμένα και προφανή, και θα πρέπει να αναθεωρηθούν.

Απάντηση:

Έχουν πραγματοποιηθεί σχετικές τροποποιήσεις στα μαθησιακά αποτελέσματα όπως φαίνεται στο Παράρτημα IV. Ωστόσο, πρέπει να επισημανθεί ότι τα συγκεκριμένα μαθησιακά αποτελέσματα είναι γενικά γιατί αφορούν το πρόγραμμα ως σύνολο. Λεπτομερή και συγκεκριμένα μαθησιακά αποτελέσματα περιγράφονται εκτενώς σε κάθε ένα από τα επιμέρους syllabi.

Εισήγηση (Ε.Ε.Α.):

Η παρουσίαση των βιογραφικών σημειωμάτων των διδασκόντων, θα μπορούσε να ακολουθεί ένα ενιαίο τρόπο οργάνωσης επιλέγοντας μια από τις διεθνώς διαθέσιμες φόρμες, έτσι ώστε να περιορίζεται σε 2-3 σελίδες με συγκεκριμένο τρόπο καταγραφής των ακαδημαϊκών χαρακτηριστικών. Αυτό θα διευκόλυνε τη δυνατότητα σύγκρισης του προφίλ εκάστου καθώς και την αντιστοίχιση του με την καθηγητική βαθμίδα στην οποία είναι ενταγμένος.

Απάντηση:

Αυτό το σχόλιο είναι εξαιρετικά χρήσιμο και μια τέτοια παρουσίαση θα βελτίωνε πολύ την εικόνα του προγράμματος αλλά και την πρακτική σύγκριση των ακαδημαϊκών προσόντων των διδασκόντων. Αν και μια τέτοια παρουσίαση έχει ήδη γίνει στις σελίδες 11-17 του κατατεθέντος προγράμματος, όπου παρουσιάζονται πολύ συνοπτικά τα βιογραφικά όλων των διδασκόντων του προγράμματος, το ΕΠΚ έχει λάβει σοβαρά υπόψη αυτή την παρατήρηση και έχει ήδη προβεί στις ανάλογες ενέργειες έτσι ώστε ένα τέτοιο σύστημα να εφαρμοστεί στα υπόλοιπα προγράμματα που θα κατατεθούν μελλοντικά στο φορέα ΔΙΠΑΕ.

Εισήγηση (Ε.Ε.Α.):

Στις υποχρεώσεις του διδακτικού προσωπικού συμπεριλαμβάνεται η τακτική ενημέρωση των βιβλιοθηκάριων για τυχόν ελλείψεις και αγορά των νέων ανανεωμένων εκδόσεων των συγγραμμάτων καθώς και η πρόσβαση των φοιτητών στις ανανεωμένες ηλεκτρονικές εκδόσεις συγγραμμάτων, πολλές από τις οποίες είναι διαδραστικές.

Απάντηση:

Αυτό ισχύει ήδη, εφόσον οι υπεύθυνοι των μαθημάτων αναλαμβάνουν σε τακτά χρονικά διαστήματα την ενημέρωση των βιβλιοθηκάριων σχετικά με τα βιβλία που θα χρειαστούν για κάθε μάθημα και πιθανές νέες εκδόσεις αυτών έτσι ώστε πάντα να υπάρχει ένας σεβαστός αριθμός βιβλίων στη βιβλιοθήκη που να είναι διαθέσιμα προς δανεισμό από τους φοιτητές.

Εισήγηση:

Οι ερευνητικές δραστηριότητες και η περιγραφή των ερευνητικών εργαστηρίων του ΕΠΚ θα έπρεπε να αποτελούν ξεχωριστό Παράρτημα ώστε να είναι διακριτές από τις υπόλοιπες δραστηριότητες και υποδομές.

Απάντηση:

Επιπρόσθετα με τις πληροφορίες που παρέχονται στα βιογραφικά σημειώματα των διδασκόντων καθώς και στη σύντομη περιγραφή τους (σελ.11-17 του κατατεθέντος προγράμματος), οι ερευνητικές δραστηριότητες και η περιγραφή των ερευνητικών εργαστηρίων του τμήματος Επιστημών Ζωής του ΕΠΚ που θα υποστηρίξει το πρόγραμμα Βιοϊατρικών Επιστημών έχουν προστεθεί ως Παράρτημα V.

Εισήγηση:

Το Παράρτημα που αφορά τη φοιτητική μέριμνα, είναι λεπτομερές και πλούσιο σε περιεχόμενο. Θα ήταν περισσότερο χρηστικό αν η διάρθρωσή του ακολουθούσε μια ομαδοποίηση από τα σπουδαιότερα και πιο γενικού ενδιαφέροντος προς τα επιμέρους αντικείμενα και δραστηριότητες.

Απάντηση:

Ακολουθώντας την εισήγηση των αξιολογητών, έγινε αναδιάρθρωση του παραρτήματος που αφορά στη φοιτητική μέριμνα όπως φαίνεται στο ***Παράρτημα VI****.*

Επισημάνσεις που δεν περιλαμβάνονται στα καταληκτικά σχόλια:

- Η Επιτροπή θα επιθυμούσε να λάβει γνώση δειγματοληπτικά, των συμβολαίων διεθνούς εμβέλειας επιστημόνων (π.χ. Καθηγ. R. Huber) που συνεργάζονται ως διδάσκοντες με το ΕΠΚ, καθώς και των συμβολαίων Επιστημονικών Συνεργατών οι οποίοι αναφέρονται ως διδάσκοντες μερικής απασχόλησης στο Πρόγραμμα «Βιοιατρικές Επιστήμες» και είναι εν ενεργεία καθηγητές σε δημόσια Πανεπιστήμια.

Ένα δείγμα συμβολαίου μέλους ΔΕΠ και ένα δείγμα συμβολαίου επιστημονικού συνεργάτη περιλαμβάνονται στο ***Παράρτημα VII****. Συγκεκριμένα συμβόλαια συγκεκριμένων προσώπων δεν μπορούν να δοθούν αφού προστατεύονται από το νόμο περί προστασίας προσωπικών δεδομένων.*

- Οι ερευνητικές δραστηριότητες και η περιγραφή των ερευνητικών εργαστηρίων του ΕΠΚ θα έπρεπε να αποτελούν ξεχωριστό Παράρτημα.

Για τη συγκεκριμένη διάρθρωση του προγράμματος, ακολουθήθηκε το προτεινόμενο συγκεκριμένο έντυπο του Φορέα ΔΙΠΑΕ. Ωστόσο, στο ***Παράρτημα V*** *περιλαμβάνεται σύντομη περιγραφή των ερευνητικών εργαστηρίων και δραστηριοτήτων του προσωπικού του τμήματος Επιστημών Ζωής.*

- Η Επιτροπή Αξιολόγησης θεωρεί ότι τα κριτήρια εισδοχής των υποψηφίων φοιτητών (30 θέσεις, συνολικά) είναι σαφή, όμως δεν αναφέρεται ο τρόπος «κανονικοποίησης» των βαθμολογιών των απολυτηρίων από διαφορετικά βαθμολογικά συστήματα.

Σχετικά με αυτό το σχόλιο, το ΕΠΚ έχει συγκεκριμένο σύστημα που εφαρμόζεται από το Γραφείο Εισδοχών. Συγκεκριμένα, η αξιολόγηση των διαφορετικών εκπαιδευτικών ιδρυμάτων και διαφορετικών εκπαιδευτικών συστημάτων γίνεται με βάση τις κατευθυντήριες γραμμές του UK NARIC International qualifications hub, στο οποίο το ΕΠΚ είναι μέλος.

- Επιτροπή κρίνει ότι η περιγραφή των προσδοκώμενων μαθησιακών αποτελεσμάτων δεν έχει πλήρως διαμορφωθεί με τρόπο που να παρέχει την επιζητούμενη πληροφορία με τρόπο συνοπτικό και ολοκληρωμένο για κάθε μάθημα χωριστά αλλά και ως υποσύνολο του ευρύτερου στόχου του προγράμματος σπουδών.

Τα μαθησιακά αποτελέσματα είναι γενικά στο γενικό μέρος της περιγραφής του προγράμματος και γίνονται πιο ειδικά και συγκεκριμένα στο κάθε επιμέρους syllabus.

- Επιπρόσθετα, καθώς δεν έχει κατατεθεί ο κατάλογος των προτεινόμενων κατ' επιλογή μαθημάτων, η Επιτροπή επιφυλάσσεται ως προς την κρίση της για τον αριθμό και την προστιθέμενη αξία τους στο πρόγραμμα.

Στην αναθεωρημένη έκδοση του προγράμματος έχει προστεθεί ένας κατάλογος από έξι (6) μαθήματα επιλογής σχετικά με το αντικείμενο ***(Παράρτημα Ι).***

- Το Πρόγραμμα Σπουδών «Βιοϊατρικές Επιστήμες» δεν έχει ακόμη συνάψει ειδικές συνεργασίες με άλλα αντίστοιχα προγράμματα διεθνώς. Δεν προτείνονται προγράμματα ανταλλαγών φοιτητών του Προγράμματος.

Για τα υφιστάμενα προγράμματα υπάρχουν ήδη συνεργασίες με άλλα αντίστοιχα προγράμματα του εξωτερικού και άρα αυτές οι συνεργασίες είναι διαθέσιμες και για το προτεινόμενο πρόγραμμα. Επιπλέον, οι διδάσκοντες καθηγητές του προγράμματος έχουν ανοιχτή συνεργασία με πολλαπλά πανεπιστημιακά και ερευνητικά ιδρύματα του εξωτερικού τις οποίες και θα αξιοποιηθούν στο έπακρο για την καλύτερη λειτουργία του προγράμματος.

- Προβληματισμός υπάρχει αναφορικά με την επάρκεια αυτών στην περίπτωση που αυξηθεί ο αριθμός των φοιτητών ή ιδρυθούν επιπλέον συναφή Προγράμματα στο ΕΠΚ.

Η πολιτική του πανεπιστημίου είναι η εκ των προτέρων μελέτη και προγραμματισμός των υπαρχουσών αναγκών κάθε προγράμματος με σκοπό την κατάρτιση του ετήσιου προϋπολογισμού. Έτσι και για τις ανάγκες του συγκεκριμένου προγράμματος έχει ήδη εγκριθεί ο σχετικός προϋπολογισμός.

- Η απονομή του τίτλου σπουδών συνοδεύεται από «Παράρτημα Διπλώματος» (diploma supplement) το οποίο είναι σύμφωνο με τις ευρωπαϊκές και διεθνείς προδιαγραφές (σελ. 30, παράγραφος 2.4.1).

Πρέπει να τονιστεί ότι, εδώ και χρόνια, το ΕΠΚ δίνει σε κάθε απόφοιτο όλων των προγραμμάτων του πανεπιστημίου το Diploma Supplement , το οποίο είναι σύμφωνο με τις ευρωπαϊκές και διεθνείς προδιαγραφές. Στο Πανεπιστήμιο έχει απονεμηθεί το Diploma Supplement Label από το 2012. Δείτε συνημμένο δείγμα ***(Παράρτημα VIII).***

Δρ. Χρήστος Δημόπουλος
Κοσμήτορας
Σχολή Θετικών Επιστημών

Ημερομηνία: 24 Φεβρουαρίου 2017

Ευρωπαϊκό Πανεπιστήμιο Κύπρου
LAUREATE INTERNATIONAL UNIVERSITIES

ΠΑΡΑΡΤΗΜΑ Ι

Τροποποιημένο Πρόγραμμα Σπουδών

DEGREE REQUIREMENTS All students pursuing the Bachelor of Science degree in "Biomedical Sciences" must complete the following requirements:	
YEAR 1	**60**
YEAR 2	**60**
YEAR 3	**60**
YEAR 4	**60**
Total Requirements	**240 ECTS**

Year 1		
SEMESTER 1		**30 ECTS**
BMS111	Introduction to Human Biology	6
BMS112	Calculus I	5
CHE113	General and Inorganic Chemistry	9
EUC110	Academic skills	5
ENH090	English for Health Sciences III	5
SEMESTER 2		**30 ECTS**
BMS121	Organic Chemistry	6
BMS122	Anatomy I	6
BMS123	Physiology I	6
BMS124	Cell Biology	7
BMS125	Physics for biomedical sciences	5

Year 2		
SEMESTER 3		**30 ECTS**
BMS211	Anatomy II	6
BMS212	Physiology II	6
BMS213	Molecular Biology	6
BMS214	Biochemistry I	7
BMS215	Applied Biostatistics	5
SEMESTER 4		**30 ECTS**
BMS221	Biochemistry II	8
BMS222	Basic Epidemiology	6
BMS223	Histology I	8
BMS224	Medical Genetics	8
Year 3		
SEMESTER 5		**30 ECTS**
BMS311	Developmental Biology and Embryology	5
BMS312	Bioinformatics	5
BMS313	Nutrition and metabolism	5
BIO307	Biotechnology	5
BMS314	Reproductive biology	5
RES303	Research Methodology in Health Sciences	5
SEMESTER 6		**30 ECTS**
BMS321	Microbiology	7
BMS322	Clinical Immunology and Hematology	7
BMS323	Bioethics and Scientific Integrity	5
BMS324	Regenerative Medicine	6
Elective course*		5
Year 4		
SEMESTER 7		**30 ECTS**
BMS411	Final year project I	8

BMS412	Systems Biomedicine	6
BMS413	Cancer Biology	6
BMS414	Molecular Pharmacology	5
Elective course*		5
SEMESTER 8		**30 ECTS**
BMS421	Final year project II	12
BMS422	Clinical Chemistry	7
BMS423	Drugs and disease	5
BMS424	Pathobiology	6

*** Electives are selected from the list below:**

BIO308	Teaching Biology	5
BMS325	Health Care Management and Public Health	5
BMS326	Cellular Neuroscience	5
BMS327	Toxicology and Forensics	5
BMS415	Medical Psychology	5
BMS416	Personalized Medicine	5

TABLE 2: COURSE DISTRIBUTION PER SEMESTER

A/A	Course Type	Course Name	Course Code	Periods per week	Period duration	Number of weeks/ Academic semester	Total periods/ Academic semester	Number of ECTS
1st Semester								
1	Compulsory	Introduction to Human Biology	BMS111	5	60	14	68	6
2	Compulsory	Calculus I	BMS112	3	60	14	42	5
3	Compulsory	General and Inorganic Chemistry	CHE113	5	60	14	68	9
4	Compulsory	Academic skills	EUC110	2	60	14	29	5
5	Compulsory	English for Health Sciences III	ENH090	3	60	14	42	5
2nd Semester								
6	Compulsory	Organic Chemistry	BMS121	5	60	14	68	6
7	Compulsory	Anatomy I	BMS122	3	60	14	42	6
8	Compulsory	Physiology I	BMS123	3	60	14	42	6
9	Compulsory	Cell Biology	BMS124	5	60	14	68	7
10	Compulsory	Physics for biomedical sciences	BMS125	2	60	14	29	5
3rd Semester								
11	Compulsory	Anatomy II	BMS211	3	60	14	42	6
12	Compulsory	Physiology II	BMS212	3	60	14	42	6

13	Compulsory	Molecular Biology	BMS213	5	60	14	68	6
14	Compulsory	Biochemistry I	BMS214	6	60	14	81	7
15	Compulsory	Applied Biostatistics	BMS215	3	60	14	42	5
4th Semester								
16	Compulsory	Biochemistry II	BMS221	6	60	14	81	8
17	Compulsory	Basic Epidemiology	BMS222	3	60	14	42	6
18	Compulsory	Histology I	BMS223	6	60	14	81	8
19	Compulsory	Medical Genetics	BMS224	5	60	14	68	8
5th Semester								
20	Compulsory	Developmental Biology and Embryology	BMS311	3	60	14	42	5
21	Compulsory	Bioinformatics	BMS312	2	60	14	29	5
22	Compulsory	Nutrition and metabolism	BMS313	3	60	14	42	5
23	Compulsory	Biotechnology	BIO307	3	60	14	42	5
24	Compulsory	Reproductive biology	BMS315	3	60	14	42	5
25	Compulsory	Research Methodology in Health Sciences	RES303	3	60	14	42	5
6th Semester								
26	Compulsory	Microbiology	BMS321	5	60	14	68	7

27	Compulsory	Clinical Immunology and Hematology	BMS322	4	60	14	55	7
28	Compulsory	Bioethics and Scientific Integrity	BMS323	2	60	14	29	5
29	Compulsory	Regenerative Medicine	BMS324	3	60	14	42	6
	Elective	*Elective course*		3	60	14	42	5
7th Semester								
30	Compulsory	Final year project I	BMS411	3	60	14	42	8
31	Compulsory	Systems Biomedicine	BMS412	3	60	14	42	6
32	Compulsory	Cancer Biology	BMS413	3	60	14	42	6
33	Compulsory	Molecular Pharmacology	BMS414	3	60	14	42	5
34	Elective	*Elective course*		3	60	14	42	5
8th Semester								
35	Compulsory	Final year project II	BMS421	4	60	14	56	12
36	Compulsory	Clinical Chemistry	BMS422	5	60	14	68	7
37	Compulsory	Drugs and disease	BMS423	3	60	14	42	5
38	Compulsory	Pathobiology	BMS424	3	60	14	42	6

Ευρωπαϊκό
Πανεπιστήμιο Κύπρου
LAUREATE INTERNATIONAL UNIVERSITIES

ΠΑΡΑΡΤΗΜΑ ΙΙ

Τροποποιημένα διαγράμματα μαθημάτων (syllabi)

Course Title	Organic Chemistry				
Course Code	BMS121				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	1st Year / 2nd Semester				
Teacher's Name	Andreas Kalogirou				
ECTS	6	Lectures / week	2 Hours	Laboratories / week	3 Hours
Course Purpose and Objectives	This course is designed to introduce Biomedical Sciences students to the world of Organic Chemistry and provide general background, both at the theoretical and practical level through laboratory exercises. Completion of this course will qualify students for succeeding in all the lessons of the curriculum that require solid background in organic chemistry. More specifically, students will familiarize themselves with the structure and properties (physical and chemical) of members of the main homologous series of Organic Chemistry, as well as simple mechanisms of organic reactions, the structure and function of organic compounds found in living organisms (biomolecules), and the basic spectroscopic techniques used for the identification of organic compounds structure				
Learning Outcomes	Upon successful completion of this course students will be able to: • Identify the structure of molecules and basic reactions of organic chemistry • Describe the main spectroscopic techniques • Describe the basic principles and rules of stereochemistry • Distinguish the main classes of organic compounds and biomolecules, name them, and describe their properties as well as the mechanisms of their basic reactions • Combine the application of the main spectroscopic techniques to elucidate the structure of simple molecules • Perform antithetical analysis of simple organic molecules • Propose reaction sequences for synthesis of simple organic molecules by drawing the most efficient chemical reaction sequence • Classify organic compounds				
Prerequisites	CHE104	Co-requisites	None		

Course Content	This course is designed to introduce Biomedical Sciences students to the world of Organic Chemistry and provide general background, both at the theoretical and practical level through laboratory exercises. Completion of this course will qualify students for succeeding in all the lessons of the curriculum that require solid background in organic chemistry. More specifically, students will familiarize themselves with the structure and properties (physical and chemical) of members of the main homologous series of Organic Chemistry, as well as simple mechanisms of organic reactions, the structure and function of organic compounds found in living organisms (biomolecules), and the basic spectroscopic techniques used for the identification of organic compounds structure. **Description:** **Theory** • Classification and nomenclature of organic compounds. Structure of carbon, hydrogen, oxygen, sulfur and nitrogen. • Chemical bonds and structure of the molecule. Stereochemistry and spectroscopy. Inductive effect and resonance. Categories of reagents, reactions and mechanisms. • Hydrocarbons: alkanes, alkenes, alkynes, cycloalkanes, benzene. Alcohols, ethers, phenols. Simple sulphides. Nitro-compounds, amines, diazonium salts. Esters of organic and inorganic acids. Hydrogen bonds in organic compounds. Stereochemistry: enantiomers, diastereomers, geometric isomers. Carbohydrates. Amino acids and proteins. Aromatic compounds. Nucleic acids and nucleotides. Lipids. Stereochemistry and mechanisms of enzymatic reactions. **Laboratory Exercises** • Techniques: Boiling point. • Simple and fractional distillation. Steam distillation for isolation of eugenol from cloves • Qualitative analysis of organic matter • Methods for separation of organic compounds • Methods for purification of organic compounds • High performance liquid chromatography, gas chromatography • Infrared spectroscopy, mass spectroscopy. • Purification and separation of liquid substances • Detection and specific functionalization reactions (detection of double bonds, Carbonyls, sugars, amino-acids, alkyl-halides, alcohols) • Aldehydes - Ketones - carboxylic acids – hydroxy acids - dicarboxylic acids Amines – Phenols • Preparation of acetylsalicylic acid

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Urea-proteins and amino acids
Carbohydrates
Benzoic acid and caffeine recrystallizing
Salicylic acid extraction from aqueous solution
Chromatographic Methods (thin layer chromatography-TLC)
Analysis of analgesic drugs

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<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>McMurry J, Organic Chemistry (2012).

McMurry J,. Castellion M.E,. Ballantine D.S, Fundamentals of General, Organic, and Biological Chemistry (5th Edition), Prentice Hall, 2006.

Organic Chemistry, 10th Edition, by T.W. Solomons and

C.B. Fryhle. (Publisher: Wylie)</td></tr>
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<tr><td>Final Examination</td><td>40%</td></tr>
<tr><td>Laboratory</td><td>30%</td></tr>
<tr><td>Class Participation</td><td>10%</td></tr>
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Course Title	Anatomy I				
Course Code	BMS122				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	1st Year / 2nd Semester				
Teacher's Name	Nicolas Christodoulou				
ECTS	6	Lectures / week	2 Hours	Laboratories / week	1 Hour
Course Purpose and Objectives	The objective of the course is to familiarize students with: • The fundamentals of anatomy and anatomical terminology • The morphology and structure of the musculoskeletal system, and its functions. • The anatomy of Central and Peripheral Nervous system				
Learning Outcomes	Upon successful completion of this course students should be able to: • Explain the fundamentals of the methods that support the study of anatomy. • Recall the terminology and use accurately the International Anatomical Nomenclature for naming the various anatomical structures of the human body. • Identify and describe the morphology of the bones, joints, muscles, nervous and vascular components of the musculoskeletal system. • Relate the structural characteristics of the anatomical elements of the musculoskeletal system to their function.				
Prerequisites	None	Co-requisites	BMS123		
Course Content	• Fundamentals of Anatomy • Basic principles of topographic anatomy (anatomical terms) • Basic concepts of cytology and histology • International Anatomical Terminology • Morphological Characteristics of the Musculoskeletal Elements • Structural Characteristics of the Joints and their Function • Vascular (blood vessels and lymphatic system) and Nervous Tissue Elements of the Musculoskeletal System • Structural Characteristics of muscles and ligaments and their relationship with joints				

	• Anatomy of the head, neck, spine and limbs • Movement and its relationship to the structure and function of the Musculoskeletal System • Central and peripheral nervous system (neural cells, brain, spinal cord), meninges, spinal cord. • Pain, pyramidal and extrapyramidal system • Autonomic nervous system **Laboratory exercises:** Using audiovisual means, students will be trained in anatomy and present projects in relation to the content of the course in order to fully comprehend the material taught. Additionally, students will be able to search for relevant information by accessing libraries and the internet.
Teaching Methodology	Face- to- face
Bibliography	Gray's Anatomy; Drake, Richard L./Vogl, A. Wayne/Mitchell, Adam W.; 2nd; 978-0-443-06952-9; Elsevier; 2010 Anatomy: Development, Function, Clinical Correlations; Larsen, W.J.; 978-0721646466; Saunders; 2002 Essential Clinical Anatomy; Moore Keith; 4th; 978-1609131128; Lippincott, Williams & Wilkins; 2010 Clinical Neuroanatomy; Snell Richard; 7th; 978-0781794275; Lippincott Williams and Wilkins; 2009 Atlas of Human Anatomy: with Student Consult Access (Netter Basic Science); Frank H. Netter; 5th; 978-1416059516; Saunders; 2010 Human Embryology; Larsen, W.; 3rd; 978-0443065835; Churchill Livingstone; 2001 The Developing Human: Clinically Oriented Embryology; Moore, Keith L. / Persaud, T.V.; 9th; 978-1437720020; Saunders; 2012 **ADDITIONAL RECOMMENDED TEXTBOOKS:** Neuroanatomy: An Illustrated Colour Text; Alan R. Crossman / David Neary ; 4th; 978-0702030864; Churchill Livingstone; 2010 Clinical Anatomy By Regions; Snell, Richard; 9th; 978-1451110326; Wolters Kluwer; 2011 Atlas of Human Anatomy, Professional Edition; Netter, Frank H.; 5th; 978-1437709704; Saunders; 2010

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<tr><td></td><td>Atlas and Textbook of Human Anatomy: Bones, Ligaments, Joints, and Muscles; Johannes Sobotta; 978-1246570199; 2010

Grant's Atlas of Anatomy; Anne M. R, Agur; 978-1608315130; Lippincott, Williams & Wilkins; 2009

Clinical Neuroanatomy and Neuroscience; Fitzgerald, T.M./Gruener Gregory; 6th; 978-0702037382; Saunders; 2011

Langmans Medical Embryology; Sadler, Thomas; 12th; 978-1451144611; Wolters Kluwer; 2011</td></tr>
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Course Title	Physiology I				
Course Code	BMS123				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	1st Year / 2nd Semester				
Teacher's Name	Theodoros Xanthos				
ECTS	6	Lectures / week	2 Hours	Laboratories / week	1 Hour
Course Purpose and Objectives	The objective of the course is to familiarize students with • The principles of Physiology as a basic biological science. • The physiology of the musculoskeletal system • The mechanisms of preservation of the internal environment of the body through homeostasis • The importance of the skin as a functional system				
Learning Outcomes	Upon successful completion of this course students will be able to: • Recall the principles of Physiology as a basic biological science. • Discuss the principal functional characteristics of the musculoskeletal system. • Describe the fundamentals of the physiology of exercise, the physiology of ageing and the physiology of adaptation to extreme and adverse conditions. • Analyze the organization and the composition of the fluid compartments of the body. • Define the principles of homeostasis of the body fluids. • Enumerate and describe the skin properties and functions and its associated organs.				
Prerequisites	None	Co-requisites	BMS122		
Course Content	• Fundamentals of Physiology. • Functional Characteristics of the Musculoskeletal System • Brief description of the neuromuscular system function • Central and peripheral nervous system function • Roads of the senses, pyramidal and extrapyramidal system Autonomic nervous system • Homeostasis, fluid balance and acid-base balance • The physiology of exercise				

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The growth and development of the human body and the process of ageing
Adaptation to extreme environmental conditions
Functions of the Skin and Associated Organs, including the physiology of thermal regulation.

Laboratory exercises:
Using audiovisual means, students will be trained in physiology and present projects in relation to the content of the course in order to fully comprehend the material taught. Additionally, students will be able to search for relevant information by accessing libraries and the internet.
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<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>
Principles of Physiology; Berne, R.M.; 3rd; 978-0323008136; Mosby; 2000

Guyton and Hall Textbook of Medical Physiology:; John E. Hall; 12th; 978-1416045748; Saunders; 2010

Principles of Neural Science; Kandel, E.R./ Schwartz, J/H./ Jessell, T.M.; 4th; 978-0838577011; McGraw-Hill; 2000

ADDITIONAL RECOMMENDED TEXTBOOKS:

Medical Physiology: A Cellular and Molecular Approach; Boron,F.W. / Boulpaep L.E; 2nd; 978-1416031154; Saunders; 2008

Neuroscience; Purves; 5th; 978-0878936465; Sinauer Associates; 2011

An Introduction to Brain and Behavior; Kolb, Bryan; 978-1429253741; Worth Publishers; 2010

Human Physiology: The Mechanisms of Body Function; Vander, Arthur; 8th; 978-0071183826; McGRaw-Hill; 2001
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Course Title	Biochemistry I				
Course Code	BMS214				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	2nd Year / 3rd Semester				
Teacher's Name	Ioannis Patrikios				
ECTS	7	Lectures / week	3 Hours	Laboratories / week	3 Hours
Course Purpose and Objectives	The objective of the course is to familiarize students with • The principal biochemical and metabolic processes in the body, their pathways and the role of the cell membrane and the different enzymes • The process of intra- and inter- cellular communication				
Learning Outcomes	Upon successful completion of this course students should be able to: • Identify the principal classes of biomolecules and explain their function or activity with regard to their chemical structure. • Explain the interactions of simple biomolecules giving rise to complex supramacromolecular structures. • Describe the structure and properties of water and understand its macromolecular structure, its properties and biological functions. • Discuss the general principles of enzymology and the importance of enzymes as essential molecules in cellular metabolism. • Analyze the principal metabolic strategies that are used by the human body to obtain and use energy. • Describe the principal biochemical metabolic processes, their interrelationships and their role in maintaining bioenergetic balances in the body. • Describe the role of biological membranes in the processes which generate and use biological energy and also maintain the compartmentalization of the vital processes. • Explain the molecular basis of signal transduction pathways. • Relate the metabolic changes in pathophysiological processes to the most common biochemical analyses, analyse and evaluate the origin of changes and their physiological consequences.				
Prerequisites	None	Co-requisites	None		

Course Content	**Course description** **Theory** • Biomolecules and the interactions of simple biomolecules giving rise to complex supramacromolecular structures • Carbohydrate metabolism: glycolysis and gluconeogenesis • Citric acid cycle • Phosphoglyconic acid pathway and pentose phosphate • Structure and properties of water, its macromolecular structure, its properties and biological functions. • Enzymology and the roles of enzymes as essential instruments o in cellular metabolism, o in the principal metabolic strategies to obtain and use energy • Metabolic processes of the principal types of biomolecules; their interrelations and bioenergetic balances. • Biological membranes and the processes which generate and use biological energy • Molecular basis of the signal transduction pathways. • Mitochondrial diseases. **Laboratory exercises** • Safety regulations and good laboratory practice • Buffer preparation, calculations and pipette use • Introduction to basic techniques (measurements, dilutions, UV spectroscopy) • Lipid effusion techniques • Carbohydrate assessment using paper chromatography • Protein isolation from cell cultures • Spectrophotometric measurement of protein concentration • Protein separation by SDS-PAGE electrophoresis • Analysis of alkaline phosphatase enzyme
Teaching Methodology	Face- to- face
Bibliography	Textbook of Biochemistry with Clinical Correlations; Devlin, Thomas M.; 7th; 978-0470281734; John Wiley; 2010 Biochemistry: International Edition; Berg, J.M., Tymoczko, J.L.and Stryer; **ADDITIONAL RECOMMENDED TEXTBOOKS:** Introduction to Modern Biochemistry, by P. Karlson

Assessment	Mid – Term Examination 30% Final Examination 40% Assignments/Lab 20% Class Participation 10% 100%
Language	English

<table>
<tr><td>Course Title</td><td colspan="5">Biochemistry II</td></tr>
<tr><td>Course Code</td><td colspan="5">BMS221</td></tr>
<tr><td>Course Type</td><td colspan="5">Compulsory</td></tr>
<tr><td>Level</td><td colspan="5">Bachelor (1st Cycle)</td></tr>
<tr><td>Year / Semester</td><td colspan="5">2nd Year / 4th Semester</td></tr>
<tr><td>Teacher's Name</td><td colspan="5">Ioannis Patrikios</td></tr>
<tr><td>ECTS</td><td>8</td><td>Lectures / week</td><td>3 Hours</td><td>Laboratories / week</td><td>3 Hours</td></tr>
<tr><td>Course Purpose and Objectives</td><td colspan="5">The objective of the course is to familiarize students with the relationship of the biochemical pathways with the pathophysiology of diseases and the application of biochemical diagnostic procedures.</td></tr>
<tr><td>Learning Outcomes</td><td colspan="5">Upon successful completion of this course students should be able to:
Analyse and evaluate the biochemical processes as the fundamental basis of life and of all vital processes and functions in the human body.
Discuss the biosynthetic pathways and metabolism of amino acids, fatty acids and protein synthesis
Describe the role of hormones and their relationship to disease processes
Explain the metabolism of lipids in health and disease
Describe the fundamentals employed in designing the principal biochemical techniques, especially those most utilized for diagnosis (e.g. electrophoresis, ELISA, etc.).</td></tr>
<tr><td>Prerequisites</td><td colspan="2">BMS214</td><td>Co-requisites</td><td colspan="2">None</td></tr>
<tr><td>Course Content</td><td colspan="5">Course description
Theory
Metabolic changes in pathophysiological processes.
Oxidation and biosynthesis of fatty acids and metabolism of lipids
Biosynthesis of membrane lipids and steroid hormones
Biosynthesis of amino acids, nucleotides and nucleic acids
Protein synthesis
Hormones, hormonal action and the biochemical processes of the hypothalamus, pituitary, thyroid, parathyroids and adrenal glands</td></tr>
</table>

	• Glucose metabolism, insulin resistance and, metabolic syndrome • Metabolism of fats and hyperlipidaemia • Functional biochemistry • Laboratory evaluation of liver function, of tumor markers and of muscle fiber-myocardial infarcts. **Laboratory Exercises** • Amino acid composition of a dipeptide by enzymatic proteolysis and paper chromatography • Amino acid properties i.e. detection of tryptophan, detection of the peptide bond (biuret test) • Assessment of the amphoteric properties of proteins • Properties of proteins in solutions (i.e. protein precipitation with concentrated salt solutions-salting out method) • Carbohydrate analysis (Overall reaction to sugars -test with α-naphthol, reducing tests such as Fehling's test and Benedict's test, iodine test in starch • Enzymatic synthesis and hydrolysis of starch • Lipid isolation and analysis • Extraction of lecithin from egg yolk, chemical composition analysis of lecithin (detection of fatty acids, choline, phosphorus) • Detection of fat-soluble vitamins
Teaching Methodology	Face- to- face
Bibliography	Textbook of Biochemistry with Clinical Correlations; Devlin, Thomas M.; 7th; 978-0470281734; John Wiley; 2010 Biochemistry: International Edition; Berg, J.M. , Tymoczko, J.L., Stryer **ADDITIONAL RECOMMENDED TEXTBOOKS:** Introduction to modern biochemistry, by P. Karlson Clinical Biochemistry: Metabolic and Clinical Aspects; Marshall William; 2nd; 978-0443101861; Churchill Livingstone; 2008 Lehninger Principles of Biochemistry; David L. Nelson; 978-1429208925; W. H. Freeman; 2008 Harpers Illustrated Biochemistry; Harper, H./Robert, K. Murray; 29th; 978-0071765763; McGraw-Hill; 2012

Assessment	Mid – Term Examination 30% Final Examination 40% Assignments/Lab 20% Class Participation 10% 100%
Language	English

Course Title	Bioinformatics				
Course Code	BMS312				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 5th Semester				
Teacher's Name	Dr. Apostolos Zaravinos				
ECTS	5	Lectures / week	2 Hours	Laboratories / week	None
Course Purpose and Objectives	The overall objective of the course is the basic understanding of the field of bioinformatics that will enable students to gather information related to their biological inquiries and use computational analysis and web-based bioinformatics tools and databases to answer a scientific question.				
Learning Outcomes	Upon successful completion of the course, students are expected to be able to: • examine the structure and function of genes and proteins through the use of computational analysis, statistics, and pattern recognition • filter, analyze, and display the results of using web-based bioinformatics tools and databases • write, debug, and run small programs • learn how to access new information and how to assimilate it into the whole, in order to continue to learn beyond the limits of this course • have a solid understanding of the scope of bioinformatics				
Prerequisites	None	Co-requisites	None		
Course Content	**Description:** This course will explore how computer science and mathematics, supported by information technology, have combined with modern laboratory technologies to solve various problems in the biological sciences. Areas that will be discussed include: •sequence alignment •probability and the significance of results •gene prediction •multiple sequence alignment • functional genomics				

<table>
<tr><td></td><td>• use of sequence, gene, and protein databases
• use of web-based bioinformatics tools
• DNA sequencing and assembly
It should be noted that students will not develop or implement bioinformatics algorithms but rather solve bioinformatics problems with written exercises, and web-based queries.</td></tr>
<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>"Understanding Bioinformatics"
Author: Marketa Zvelebil, Jeremy Baum
ISBN: 9780815340249
Publisher: Garland Science / Taylor & Francis Group

"Introduction to Bioinformatics", 4th edition
Author: Arthur Lesk
ISBN: 9780199651566
Publisher: Oxford University Press, USA

"Practical Computing for Biologists"
Author: Steven Haddock, Casey Dunn
ISBN: 9780878933914
Publisher: Sinauer Associates</td></tr>
<tr><td>Assessment</td><td><table><tr><td>Mid – Term Examination</td><td>30%</td></tr><tr><td>Final Examination</td><td>40%</td></tr><tr><td>Assignments/Lab</td><td>20%</td></tr><tr><td>Class Participation</td><td>10%</td></tr><tr><td></td><td>100%</td></tr></table></td></tr>
<tr><td>Language</td><td>English</td></tr>
</table>

Course Title	Biotechnology				
Course Code	BIO307				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 5th Semester				
Teacher's Name	Dr. Apostolos Zaravinos				
ECTS	5	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The main aim of the course is to familiarize the students with basic principles and important applications of Biotechnology in animals, plants and microorganisms while at the same time giving them the chance to ponder over economic, social and ethical implications that may rise.				
Learning Outcomes	Upon successful completion of the course, students will be able to: • Describe basic principles and applications of both classical and modern Biotechnology. • Explain basic principles and molecular processes involved in the technology of recombinant DNA • Summarize the main applications of Biotechnology in relation to animals, plants and microorganisms • Describe the main applications of Biotechnology in the food, and the environment as well as in medicine Discuss modern issues of bioethics in terms of Biotechnology applications and their implications in society and economy				
Prerequisites	BMS111	Co-requisites	None		
Course Content	**Description:** -Introduction and historical perspective of the use of Biotechnology since ancient times. Comparison with modern Biotechnology -Recombinant DNA technology -Fermentation -Enzymatic reactions -Use of microorganisms in Biotechnology -Biotechnology in preparation and processing of food ingredients -Animals and Biotechnology -Plants and Biotechnology, genetic modification, classical genetic improvement -Biotechnology products: food, beverages, chemical compounds, drugs, fuels.				

<table>
<tr><td></td><td>-Medical Biochemistry
-Biochemistry and safety
-Societal, economical, legal and ethical considerations concerning the increasing use of Biotechnology in everyday life.</td></tr>
<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>Basic Biotechnology, by Bjorn Kristiansen and Colin Ratledge, Cambridge University Press, 3rd edition.

Textbook of animal Biotechnology, by B.Singh, SK.Gauyam, and MS. Chauhan, The Energy and Resources Institute.

Medical Biotechnology, by Judit Pongracz and Mary Kenn, Elsevier, 2008.

Plant Biotechnology and agriculture: Prospects for the 21st century, by A. Altman and PM. Hasegawa, Associated press.</td></tr>
<tr><td>Assessment</td><td><table><tr><td>Mid – Term Examination</td><td>30%</td></tr><tr><td>Final Examination</td><td>40%</td></tr><tr><td>Assignments/Lab</td><td>20%</td></tr><tr><td>Class Participation</td><td>10%</td></tr><tr><td></td><td>100%</td></tr></table></td></tr>
<tr><td>Language</td><td>English</td></tr>
</table>

Course Title	Clinicall Immunology and Hematology				
Course Code	BMS322				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 6th Semester				
Teacher's Name	Dr. Orphanidou Timokleia				
ECTS	7	Lectures / week	2 Hours	Laboratories / week	2 Hours
Course Purpose and Objectives	The objective of this course is to provide the ground knowledge of the immune system and its functions as well as the role of cells found in the blood. Comparison will be made between healthy state and states where either the immune system is being compromised (immune deficiencies, autoimmunity, hypersensitivity disease, transplantation) or hematological malfunctions occur.				
Learning Outcomes	On completion of the course, students should be able to: • define the basic components of the immune system • identify its function in health and disease (immune deficiencies, autoimmunity, hypersensitivity disease, transplantation) • describe the various tests and techniques used to examine its function and their use in clinical diagnostics • outline the principles of vaccinations and the mechanism of protection from infection • distinguish the developmental stages of blood cells • demonstrate and understanding of the components of human blood and characteristics, functions, and abnormalities of each • describe the coagulation mechanism including abnormalities • identify hematological changes in different diseases				
Prerequisites	None		Co-requisites	None	
Course Content	• Topics that will be covered with regard to clinical immunology include: a) The innate immune system including humoral mechanisms: cytokines & complement; b) the activation and regulation of innate and adaptive immunity including cellular mechanisms & receptors c) an overview of the adaptive immune system including antigen processing & presentation;				

	d) the description of cells and organs of the immune system; e) Cell co-operation and effector mechanisms including immune evasion and principles governing vaccination; f) antibody structure and interaction with antigens; g) the molecular basis of antigen specificity h) self/non-self discrimination and disorders of the immune system; i) Immunisation principles and defense against infectious diseases; j) tumor immunology; k) transplantation immunology; l) Inflammation, Allergies &autoimmunity m) Immune deficiences; and n) the use of immunological techniques for testing for the diagnosis and laboratory monitoring of disease in the clinical laboratory. • Topics that will be covered with regard to hematology include: a) Hematopoiesis, b) synthesis of hemoglobin, c) normal hematology, c)leukemia, d)various types of anemia (Fanconi, thalassemia, sickle-cell), e) thrombopoiesis, f) hemostasis **Laboratory exercises** • peripheral blood lymphocyte isolation and culture • monocyte and lymphocyte subsets isolation using antibody-coated magnetic beads • identification of functional subsets of T cells by staining for cytokines • apoptosis measurement • Enzyme Linked ImmunoSorbent Assay (ELISA) test for cytokine identification • phagocytosis evaluation techniques • differential white blood cell count • hematocrit measurement (VPRC) • hemoglobin measurement • coagulation time measurement • blood typing • total Blood Cell Counts by hemocytometer • flow cytometry and FACS analysis (principle of the method, theory and applications)
Teaching Methodology	Face- to- face
Bibliography	AK. Abbas, AH H. Lichtman. Basic Immunology Updated Edition: Functions and Disorders of the Immune System Online Access, 3e (Basic Immunology: Functions and Disorders of the Immune System) Saunders; 3 edition (February 12, 2010). ISBN-10: 141605569X, ISBN-13: 978-1416055693 Turgeonr ML Clinical Hematology: Theory & procedures, 5th edition, Williams & Wilkins

Assessment	Mid – Term Examination 30% Final Examination 40% Assignments/Lab 20% Class Participation 10% 100%
Language	English

Course Title	Regenerative Medicine				
Course Code	BMS324				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 6th Semester				
Teacher's Name	Dr.Vasiliki Gkretsi				
ECTS	6	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The main objective of the course is to provide an in-depth knowledge of the field of regenerative medicine, from basic biology of stem cells to therapeutic applications.				
Learning Outcomes	Upon successful completion of the course, students will be able to: • describe different types of stem cells and their specific characteristics • describe methods of applications to replace damaged or destroyed cells including tissue engineering • account for regenerative medicine applications to human diseases • evaluate current methods within the research field, their practical execution and application				
Prerequisites	BMS111	Co-requisites	None		
Course Content	**Theory:** • current knowledge, future potential use and development of regenerative medicine • different kinds of stem cells (pluripotent stem cells, human embryonic stem cells, induced-pluripotent stem cells, neural stem cells, hematopoietic stem cells, mesenchymal stem cells, cord blood hematopoietic stem cells etc.) • tissue engineering and their applications in accelerating the healing process to restore injured or damaged tissues and organs • basic stem cell biology as well as cellular programming and reprogramming • clinical applications of stem cell therapies on diseases, such as e.g. Parkinson's, diabetes and cancer • stem cells gene therapy • biobanking of stem cells • ethical considerations in regenerative medicine				

<table>
<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>Essentials of Stem Cell Biology,
Robert Lanza and Anthony Altala, 2nd Edition, ISBN 13: 978-0123747297

Principles of Regenerative Medicine,
Anthony Atala, Robert Lanza, James Thomson, and Robert Nerem, 2nd Edition, Academic Press, ISBN 9780123814227</td></tr>
<tr><td>Assessment</td><td><table><tr><td>Mid – Term Examination</td><td>30%</td></tr><tr><td>Final Examination</td><td>40%</td></tr><tr><td>Assignments/Lab</td><td>20%</td></tr><tr><td>Class Participation</td><td>10%</td></tr><tr><td></td><td>100%</td></tr></table></td></tr>
<tr><td>Language</td><td>English</td></tr>
</table>

Course Title	Systems Biomedicine				
Course Code	BMS412				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	4th Year / 7th Semester				
Teacher's Name	Dr. Apostolos Zaravinos				
ECTS	6	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	As knowledge of genome and gene expression deepens and lists of molecules (proteins, lipids, ions) involved in cellular processes are being developed, the need to understand how these molecules interact with each other to form modules that act as discrete functional systems arises. The main objective of the course is the introduction of students to the fundamentals of systems biomedicine, primarily as a discipline based on the analysis of dynamical interactions among individual members of a biological system aiming to the understanding of the system as a whole, and not merely its individual components.				
Learning Outcomes	Upon the successful completion of the course, the students will be able to: • comprehend the basic terms used in systems biomedicine • describe modern laboratory approaches based on '-omics' methods and their importance in identifying key factors in diseases development • integrate the '-omics' results into a meaningful whole and define the global model of biological processes responsible for disease development • learn about the usage of global '-omics' methods in early diagnostics, prognostics and drug development				
Prerequisites	BMS111, BMS213, BMS224, BMS312	Co-requisites	None		
Course Content	**Theory**: • Modern experimental approaches in disease research based on simultaneous analysis of thousands of genes/proteins/metabolites and their interactions in a living system				

<table>
<tr><td></td><td>

Monitoring of biological system functions in four dimensions (space and time)
The importance of visualization (i.e. ‘imaging’) in systems biomedicine
Fundamentals of global, comprehensive ‘-omics’ methods (DNA-chips, RT-PCR, proteomics methods) in studying molecular pathological processes
The role of ‘-omics’ methods in early diagnostics, prognostics, disease development, discovery of new molecular targets for treatment as well as in research on drug mechanisms of action and drug safety
Fundamentals of bioinformatics in systems biomedicine

</td></tr>
<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>Systems Biomedicine, Concepts and Perspectives
Edison Liu Douglas Lauffenburger
1st Edition, Academic Press
ISBN: 9780123725509.

Frontiers Research Topics. Comprehensive Systems Biomedicine. December 2014. Topic Editors, Enrico Capobianco and Pietro Lio. ISSN 1664-8714, ISBN 978-2-88919-374-5 DOI 10.3389/978-2-88919-374-5.</td></tr>
<tr><td>Assessment</td><td>
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<tr><td>Mid – Term Examination</td><td>30%</td></tr>
<tr><td>Final Examination</td><td>40%</td></tr>
<tr><td>Assignments/Lab</td><td>20%</td></tr>
<tr><td>Class Participation</td><td>10%</td></tr>
<tr><td></td><td>100%</td></tr>
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<tr><td>Language</td><td>English</td></tr>
</table>

Course Title	Final year project II				
Course Code	BMS421				
Course Type	Compulsory				
Level	Bachelor (1st Cycle)				
Year / Semester	4th Year / 8th Semester				
Teacher's Name	Mary Eleftheriadou				
ECTS	12	Lectures / week	4 Hours	Laboratories / week	Experimental Project: 8 Hours *In silico* project: 8 Hours Bibliographic Project: N/A
Course Purpose and Objectives	This course aims to provide students with the required scientific background, experimental experience and all the necessary skills needed for the planning, organization and implementation of a scientific study as well as for the analysis, documentation and presentation of its content. Students will be able to opt for one of the following types of Final Year Projects: a) Experimental Research Project, which will involve lab-based research b) *In silico* Research project, which will involve analysis of existing data using bioinformatics, data mining and similar approaches c) Literature Research Project, which will involve literature-based study. The ultimate aim of the course is the submission to the advisory committee of a scientific thesis describing current literature, aim and methods of the research performed (when applicable) as well as main results/conclusions reached. Finally, the student will present his/her work in an oral presentation under the guidance of the three-member advisory committee and the supervisor of the course.				
Learning Outcomes	Upon successful completion of the Final Year Project I, students should be able to: • clearly present the problem, the aim of their study, the methodology used, and the results/conclusions drawn in relation to the current literature				

<table>
<tr><td></td><td colspan="3">organize and carry out the presentation of the scientific work via a well written thesis as well as an oral presentation.
describe the basic techniques, methodology and principles applied in their project and field of study in relation to biomedical sciences and convey their conclusions in a written thesis using current reputable bibliographic systems.</td></tr>
<tr><td>Prerequisites</td><td>BMS411</td><td>Co-requisites</td><td>None</td></tr>
<tr><td>Course Content</td><td colspan="3">Courses: The student participates in selected lectures on the subject of the thesis in which specific issues related to the documentation of scientific information and the presentation of the thesis are being analyzed in accordance with the conditions laid down by Guide Dissertation.
Supervision and guidance: Regular weekly meetings are held between the student and the supervisor in order to provide guidance, organize the activities to be done to complete the project, and obtain feedback on the status of the work progress.
Thesis Presentation: Once the scientific research has been completed by the student, the thesis is being written in accordance with the instructions given in the Dissertation Guide. Upon submission of the thesis to the three-member advisory committee, the student is informed of the date of the oral presentation of his work. Following acceptance and evaluation of the thesis by the three-member advisory committee, the student submits the final version of his/her thesis to the Department secretary in order to obtain a grade. Detailed description of the content and course requirements are listed in the Dissertation Guide.</td></tr>
<tr><td>Teaching Methodology</td><td colspan="3">Face- to- face
Training in scientific article search in the University library.
One to one meetings with the supervisor and the members of the advisory committee.</td></tr>
<tr><td>Bibliography</td><td colspan="3">Dissertation Guide, EUC Library</td></tr>
<tr><td>Assessment</td><td colspan="3">Written Proposal 60%
Oral Presentation 40%
100%
It should be noted that completion of this course requires successful completion of every one of its evaluation components</td></tr>
<tr><td>Language</td><td colspan="3">English</td></tr>
</table>

Course Title	Healthcare Management and Public Health				
Course Code	BMS325				
Course Type	Elective				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 6th Semester				
Teacher's Name	Giangos Lavranos				
ECTS	6	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The objective of the course is to familiarize students with • The genetic, environmental and social (lifestyle and community based) determinants of health • The use of preventive and therapeutic measures at the population level. • The organization, functions and management of health care systems and the impact of health care in improving the health of populations.				
Learning Outcomes	Upon successful completion of this course students should be able to: • Demonstrate that they comprehend the principles of public health and that they can apply the methods of preventive medicine. • Identify and describe the determinants of public health: health and the environment, socioeconomic determinants, lifestyles, etc. • Discuss the primary healthcare indicators. • Demonstrate expertise about the primary activities in Public Health: planning, programming and assessment of health programs, prevention and protection from diseases, injuries and accidents, assessment of the quality of primary care and strategies for the safety of the patient, health control of food, vaccination programs, etc. • Demonstrate that they comprehend healthcare planning and administration on a global, European, national and regional level. • Demonstrate that they comprehend the economic and social implications that medical practice entails, taking into account valid effectiveness and efficiency criteria. • Describe the principles of Occupational Health.				

<table>
<tr><td>Prerequisites</td><td>None</td><td>Co-requisites</td><td>None</td></tr>
<tr><td>Course Content</td><td colspan="3">• Public health and preventive medicine.
• Determinants of public health.
• Healthcare indicators.
• Planning, programming and assessment of health programs.
• Planning and healthcare administration on a global, European, national and regional level.</td></tr>
<tr><td>Teaching Methodology</td><td colspan="3">Face- to- face</td></tr>
<tr><td>Bibliography</td><td colspan="3">The Merck Manual of Medical Information: Home Edition; Beers Mark H., Berkow Robert; 978-0671027261; Simon & Schuster Ltd; 2001

Donaldsons' Essential Public Health; Liam J. Donaldson and Gabriel Scally;

3rd; 978-1846192098; Radcliffe Publishing Ltd; 2009

Healthcare Management; Kieran Walshe and Judith Smit; 2 edition; 978-0335243815; Open University Press; 2011

Using Theory to Explore Health, Medicine and Society; Peter Kennedy and Carole Kennedy; 978-1847424013; Policy Press; 2010</td></tr>
<tr><td>Assessment</td><td colspan="3"><table><tr><td>Mid – Term Examination</td><td>30%</td></tr><tr><td>Final Examination</td><td>40%</td></tr><tr><td>Assignments</td><td>20%</td></tr><tr><td>Class Participation</td><td>10%</td></tr><tr><td></td><td>100%</td></tr></table></td></tr>
<tr><td>Language</td><td colspan="3">English</td></tr>
</table>

Course Title	Cellular Neuroscience				
Course Code	BMS326				
Course Type	Elective				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 6th Semester				
Teacher's Name	Anastasis Stefanou				
ECTS	5	Lectures / week	2 Hours	Laboratories / week	None
Course Purpose and Objectives	This course will cover the major issues of cellular neuroscience. Recent advances in the understanding of the molecular and cellular events underlying neural signaling, synaptic transmission, neural development, and plasticity will be discussed. The course is designed to provide a foundation needed for the eventual understanding of the neural basis of behavior and cognition.				
Learning Outcomes	Upon successful completion of the course, students will be able to: • describe the fundamental characteristics of neurons • discuss the basic operating principles of neural tissue • recognize the signaling capacities of neurons in terms of cellular mechanisms • recall how simple sensory, motor, and learning capacities arise from the operations of neural networks • describe how hormonal and neural elements interact to produce motivation, memory, learning, cognitive thinking, and emotions				
Prerequisites	BMS122, BMS123, BMS211, BMS212	Co-requisites	None		
Course Content	• Introduction to neurons • Glia and ion channels • Transmembrane potential (action potential, resting potential) • Synapse formation • Myelin and synaptic transmission-Synaptic integration • Perception and memory • Motor patterns • Vision, hearing and other sensory systems (olfaction, touch, pain, thermoreception) • Mechanisms of learning • Hormones, genes and behavior				
Teaching Methodology	Face- to- face				

<table>
<tr><td>Bibliography</td><td>Squire, L. R., D. Berg, et al. Fundamental Neuroscience. 3rd ed. Academic Press, 2008.

Kandel, Eric R., James H. Schwartz, and Thomas M. Jessell, eds. Principles of Neural Science. 4th ed. McGraw-Hill

Nicholls, John G. From Neuron to Brain. Sinauer Associates, 2011.</td></tr>
<tr><td>Assessment</td><td><table><tr><td>Mid – Term Examination</td><td>30%</td></tr><tr><td>Final Examination</td><td>40%</td></tr><tr><td>Assignments</td><td>20%</td></tr><tr><td>Class Participation</td><td>10%</td></tr><tr><td></td><td>100%</td></tr></table></td></tr>
<tr><td>Language</td><td>English</td></tr>
</table>

Course Title	Toxicology and Forensics				
Course Code	BMS327				
Course Type	Elective				
Level	Bachelor (1st Cycle)				
Year / Semester	3rd Year / 6th Semester				
Teacher's Name	Sotiris Michaleas				
ECTS	5	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The overall objective of the course is to provide an introductory overview of the field of toxicology covering the general toxicological principles as well as a synopsis of toxic substances.				
Learning Outcomes	Upon successful completion of the course, students will be able to: • recall basic toxicological principles • describe how different chemicals are absorbed, distributed, metabolized, and eliminated from the body (toxicokinetics) • recognize the importance of different organs for detoxification of chemicals, target organs for toxicity with emphasis on kidney and liver • explain the mechanisms for chemically induced neurotoxicity, endocrine toxicity etc, • describe the clinical toxicology of drug overdose from drug abuse/misuse or accidental exposure and evaluate in terms of patient safety. • discuss when different chemicals are most toxic, and mechanisms behind the effects. Be able to evaluate when and how different chemicals can interact during development to induce effects • apply different toxicological frameworks within the professional disciplines and have awareness about different risk assessment criteria • apply risk/benefit judgments to case reports on the safety of new drugs. • describe procedures used in the pharmaceutical industry and health community for the evaluation of the safety of new drugs and medicines • describe the application of forensics in toxicology (forensic toxicology)				
Prerequisites	CHE104, BMS123, BMS212		Co-requisites	None	

<table>
<tr><td>Course Content</td><td>Course content includes:
basic description of how substances are absorbed by, distributed and eliminated from the body, awareness about toxicokinetic models and the processes of biotransformation.
toxicity in specific target organs, effects and mechanisms. Basic toxicological knowledge of the effect of chemicals on central organs that are of significance for the uptakes/elimination and detoxification/toxification. Basic knowledge about how various systems of the body, the nervous system and the endocrine system is influenced by chemicals.
behaviour toxicology including basic behaviour toxicological knowledge, and how behavioural techniques can reveal chemicals that give functional disturbances
development toxicology including basic knowledge of different developmental phases; embryonic and embryonic development, development during the neonatal period. Critical developmental phases, teratogenic injuries and functional disturbances.
genetic toxicology, including basic knowledge about genetic injuries and general genetic testing methods and mechanisms behind chemically induced injuries as well as injuries following exposure to ionising radiation
Toxicology in the society, with emphasis on forensic toxicology. Application of forensic toxicology, and the methods employed in this field.</td></tr>
<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>Casarett, Louis J.; Klaassen, Curtis D.; Watkins, John B.Casarett & Doull's essentials of toxicology

2nd ed.: New York: McGraw-Hill Medical, c2010

Principles of Forensic toxicology 4th Edition, Barry Levine, 2013</td></tr>
<tr><td>Assessment</td><td><table><tr><td>Mid – Term Examination</td><td>30%</td></tr><tr><td>Final Examination</td><td>40%</td></tr><tr><td>Assignments</td><td>20%</td></tr><tr><td>Class Participation</td><td>10%</td></tr><tr><td></td><td>100%</td></tr></table></td></tr>
<tr><td>Language</td><td>English</td></tr>
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Course Title	Teaching Biology				
Course Code	BIO108				
Course Type	Elective				
Level	Bachelor (1st Cycle)				
Year / Semester	4th Year / 7th Semester				
Teacher's Name	Dr. Loucas Louca				
ECTS	5	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The objective of the course is the introduction of students to the theoretical and practical approaches of Teaching subjects related to Biomedical Sciences.				
Learning Outcomes	Upon successful completion of the course, students will be able to: • Explain the main objective in Teaching Biology • Critically discuss both theoretical and practical concepts of Teaching Biology and its methodology. • Organize a lecture diagram defining the main learning objectives, the means used and the biological activities that need to be undertaken as well as the means of evaluation. • Compare, explain and discuss basic characteristics of modern trends in Teaching Biology such as problem solving, inquiry-based learning, team-based learning, utilization of digital technology in teaching, development of metacognition, and situated learning, and demonstrate their application in class. Explain the theoretical background and demonstrate the practical application of differential teaching in classes of mixed abilities.				
Prerequisites	None	Co-requisites	None		
Course Content	**<u>Theory</u>**: **Description:** • Introduction. Teaching as a separate field of educational sciences. Theory of education. • Historical perspective of biomedical sciences. The meaning and objective of teaching and teaching methodology of Biology in particular. Historical perspective of the field of teaching methodology of Biology. • Theories of Learning. Modern models of Teaching Biology. Theory of Piaget, social development theory (Vygotsky), theory of interactionism (Bruner, Dienes). The development of Cognitive Science.				

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Teaching Biology aiming at the development of the reasoning ability and critical thinking: methodologies and examples.
Factors that affect learning of Biology. Internal vs external motivation.
The curriculum, sectors of knowledge. Objectives of teaching and learning in the curriculum of the Biomedical Program. Teaching content, activities and feedback means.
The role of educator and his/her relationship with children in a modern class of biological sciences.
The structure of social interaction in classroom. Team-based learning.
Diversification of biology teaching in mixed ability classes.
Daily Biology plan: progress, development and order of activities.
Selecting educational resources and materials. Teaching skills. Class organization.
Teaching Biology in Secondary Education.
Evaluation

</td></tr>
<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>
Sibley J., and Ostafichuk P. Getting started with team-based learning.

Brown C.R.The effective teaching of Biology. The effective teacher series.

Tomlinson, C.A. (2014) The differentiated classroom. Responding to the needs of all learners, 2nd edition.
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Course Title	Medical Psychology				
Course Code	BMS415				
Course Type	Elective				
Level	Bachelor (1st Cycle)				
Year / Semester	4th Year / 7th Semester				
Teacher's Name	Dr. Andria Spyridou				
ECTS	5	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The objective of the course is to familiarize students with • The basis of normal human behaviour and its changes. • The techniques of doctor – patient communication in health and disease.				
Learning Outcomes	Upon successful completion of this course students should be able to: • Discuss the biological, psychological and social foundations of the human personality and behavior. • Explain the characteristics of the individual throughout his lifespan. • Analyze the basic psychological processes that influence the behaviour of the individual. • Discuss the psychosocial basis of the processes of becoming ill. • Discuss the interactions of the person with his family, social and working group. • Identify the psychological reactions faced with in various situations of illness and death. • Demonstrate that they have acquired the skills to apply the basics of sound, effective and efficient interpersonal communication in the relationship with the patients, their families and with other professionals. • Discuss the principles of the various models of psychotherapy.				
Prerequisites	None	Co-requisites	None		
Course Content	**Theory**: • Biological, psychological and social foundations of the personality and behaviour of the individual. • Development of the personality during the entire life span of the individual.				

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- Fundamental aspects of the normal psychic functions.
- Psychosocial basis of the process of becoming ill.
- Psychological reactions in situations of illness and death.
- Principles of interpersonal communication.
- Basis of the principles of psychotherapies.

</td></tr>
<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>Medical Psychology; Frederic P. Miller, Agnes F. Vandome and John McBrewster; 978-6130658205; Alphascript Publishing; 2010
Psychology and Sociology Applied to Medicine; eth Alder, Charles S. Abraham, Edwin van Teijlingen , Michael Porter; 3rd; 978-0443067877; Churchill Livingstone; 2009</td></tr>
<tr><td>Assessment</td><td>

Mid – Term Examination	30%
Final Examination	40%
Assignments/Lab	20%
Class Participation	10%
	100%

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<tr><td>Language</td><td>English</td></tr>
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Course Title	Personalized Medicine				
Course Code	BMS416				
Course Type	Elective				
Level	Bachelor (1st cycle)				
Year / Semester	4th Year / 7th Semester				
Teacher's Name	Dr. Anastasios Stefanou, Dr.Timokleia Orfanidou				
ECTS	5	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	This course provides an introduction to the principles and applications of personalized medicine, an emerging practice of medicine that uses an individual's genetic profile to guide decisions made with regard to prevention, diagnosis, and treatment of disease.				
Learning Outcomes	Upon successful completion of this course, students should be able to: • describe the basics of heredity; what is a gene and the patterns of gene inheritance • comprehend the basic principles of molecular medicine and human genetics, how individual gene variations affect health and disease • understand the biology of genetic issues relevant to genetic test results, and various disease conditions • analyze the purpose, strengths and limitations of current and emerging genome technologies • describe the basic principles of pharmacogenetics, the use of personal genetic information in clinical medicine, and ethical, legal, and social issues concerned with genetic testing • learn how a broad range of issues impact the application of personalized medicine • understand the need for individualized diagnostics and therapeutics for patient-tailored medicine				
Prerequisites	BMS224	Co-requisites	None		
Course Content	**Theory**: Overview of genes and chromosomes • Overview of pedigree analysis • The human genome project				

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- Genes: mutations and polymorphisms
- Individual genomes: copy number variants and transposable elements
- Gene expression and epigenetics
- Principles of genomic technologies (Genome Wide Association Studies, Next Generation Sequencing)
- Human variants and drug response
- Pharmacogenetics
- Ethical considerations in Personalized Medicine

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<tr><td>Teaching Methodology</td><td>Face- to- face</td></tr>
<tr><td>Bibliography</td><td>Essentials of Genomic and Personalized Medicine,
Geoffrey S. Ginsburg and Huntington F. Willlard,
Academic Press, 1st Edition, ISBN-13: 978-0123749345</td></tr>
<tr><td>Assessment</td><td>

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Ευρωπαϊκό Πανεπιστήμιο Κύπρου
LAUREATE INTERNATIONAL UNIVERSITIES

ΠΑΡΑΡΤΗΜΑ ΙΙΙ

Προκήρυξη θέσης μέλους ΔΕΠ με αντικείμενο «Βιοϊατρική»

Το **Ευρωπαϊκό Πανεπιστήμιο Κύπρου** ανήκει στον μεγαλύτερο Διεθνή Πανεπιστημιακό Οργανισμό **Laureate International Universities**. Ο Διεθνής αυτός Οργανισμός αποτελείται από περισσότερα από 70 Πανεπιστήμια που λειτουργούν σε 25 χώρες, με σύνολο 1,000,000 φοιτητές.

Η Σχολή **Θετικών Επιστημών** του **Ευρωπαϊκού Πανεπιστήμιου Κύπρου** προκηρύσσει θέση για Διδακτικό Ερευνητικό Προσωπικό σε οποιαδήποτε ακαδημαϊκή βαθμίδα, στο ακόλουθο γνωστικό αντικείμενο:

- **Biomedicine**

Καθήκοντα και ευθύνες:

- Ακολουθεί τις διαδικασίες μάθησης και διδασκαλίας, όπως αυτές ορίζονται από το Συμβούλιο του Πανεπιστήμιου
- Εφαρμόζει το μοντέλο μάθησης του Πανεπιστήμιου και παραδίδει το πρόγραμμα σπουδών
- Προσφέρει καθοδήγηση στους φοιτητές κατά τη διάρκεια της εκπαιδευτικής τους σταδιοδρομίας
- Εποπτεύει και διευκολύνει τις εκπαιδευτικές δραστηριότητες με τη χρήση της τεχνολογίας
- Συνεργάζεται με άλλα τμήματα του Πανεπιστημίου και συμβάλει στην εφαρμογή και προώθηση των ακαδημαϊκών προγραμμάτων

Προσόντα που απαιτούνται:

- Διδακτορικό δίπλωμα στο συγκεκριμένο γνωστικό αντικείμενο
- Εξαιρετικές δεξιότητες στη γραπτή και προφορική επικοινωνία
- Πολύ καλές διαπροσωπικές ικανότητες
- Επαγγελματική συμπεριφορά και δεξιότητες παρουσίασης
- Δεξιότητες διαπολιτισμικών ικανοτήτων

- Δυνατότητα καθοδήγησης και στήριξης των φοιτητών
- Δυναμική προσωπικότητα με καινοτόμες ιδέες και ομαδικό προσανατολισμό

Προαπαιτούμενη Διδακτική Εμπειρία:

- Για τη βαθμίδα **Λέκτορα** απαιτείται ουσιαστική απόδειξη για επάρκεια στην διδασκαλία και την έρευνα
- Για τη βαθμίδα **Επίκουρου Καθηγητή** απαιτούνται τουλάχιστον 3 έτη συνεχούς ακαδημαϊκής και ερευνητικής εμπειρίας σε αναγνωρισμένα Ακαδημαϊκά Ιδρύματα
- Για τη βαθμίδα **Αναπληρωτή Καθηγητή** απαιτούνται τουλάχιστον 8 έτη συνεχούς ακαδημαϊκής και ερευνητικής εμπειρίας σε αναγνωρισμένα Ακαδημαϊκά Ιδρύματα
- Για την βαθμίδα **Καθηγητή** απαιτούνται τουλάχιστον 12 έτη συνεχούς ακαδημαϊκής και ερευνητικής εμπειρίας σε αναγνωρισμένα Ακαδημαϊκά Ιδρύματα

Οι ενδιαφερόμενοι πρέπει να υποβάλουν τα ακόλουθα:

- Επιστολή στην οποία να φαίνεται το γνωστικό αντικείμενο και η βαθμίδα για την οποία ενδιαφέρονται
- Βιογραφικό Σημείωμα
- Αποδεικτικά στοιχεία των προσόντων τους
- 2 Συστατικές επιστολές

Υποβολή αιτήσεων:

Οι αιτήσεις να υποβάλλονται στο **Τμήμα Ανθρώπινου Δυναμικού** μέχρι τη **Τρίτη, 28 Φεβρουάριου 2017**, στη ηλεκτρονική διεύθυνση (**hrm@euc.ac.cy**), **Τηλ:** +357 22713061.

Ευρωπαϊκό Πανεπιστήμιο Κύπρου
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ΠΑΡΑΡΤΗΜΑ IV

Μαθησιακά αποτελέσματα

Β. ΠΕΡΙΕΧΟΜΕΝΟ ΠΡΟΓΡΑΜΜΑΤΟΣ ΣΠΟΥΔΩΝ

Προσδοκώμενα μαθησιακά αποτελέσματα:

Με την ολοκλήρωση του προγράμματος οι φοιτητές αναμένεται να είναι ικανοί να:

- Συγκρίνουν προκαρυωτικά και ευκαρυωτικά κύτταρα και διακρίνουν τις διαφορές και τις ομοιότητες τους όσον αφορά τη μορφολογία και τα κυτταρικά οργανίδια
- Εξηγούν τον τρόπο οργάνωσης του DNA στα κύτταρα, τις βασικές αρχές αντιγραφής του DNA, τη μεταγραφή και μετάφραση, όπως επίσης και τους μηχανισμούς κυτταρικής διαίρεσης, και τις αρχές στις οποίες βασίζονται οι βασικές τεχνικές τις μοριακής βιολογίας όπως η αλυσιδωτή αντίδραση πολυμεράσης, η ανοσοστύπωση και η αποτύπωση κατά Southern και Northern.
- Κατανοούν τη διαδικασία γονιμοποίησης και να προσδιορίζουν τα κύρια δομικά και μοριακά συμβάντα που ενέχονται σε κάθε στάδιο της ανθρώπινης ανάπτυξης.
- Προσδιορίζουν τα βασικά σημεία ανατομίας για κάθε όργανο του ανθρώπινου σώματος, τη σχετική λειτουργία και τη μεταξύ τους σύνδεση.
- Αναγνωρίζουν την κλινική εικόνα και την αιτιολογία των γενετικών διαταραχών που περιλαμβάνουν: Μονογονιδιακές διαταραχές(π.χ. κυστική ίνωση, δρεπανοκυτταρική αναιμία), διαταραχές χρωμοσωμικών ανωμαλιών (π.χ. Σύνδρομο Down, Kleinefelter, Turner), εγγενή σφάλματα του μεταβολισμού, γενετικές πολυπαραγοντικές διαταραχές (π.χ. σακχαρώδης διαβήτης, ρευματοειδής αρθρίτιδα) και τη γενετική του καρκίνου καθώς και να αξιολογούν τη σημασία, τη χρησιμότητα και τους περιορισμούς των γενετικών μεθόδων.
- Ορίζουν τα κύρια χαρακτηριστικά του καρκίνου και τις κύριες θεραπευτικές μεθόδους αντιμετώπισης του καθώς και τα βήματα που οδηγούν στη μετάσταση
- Περιγράφουν χαρακτηριστικά της οξείας και χρόνιας φλεγμονής και τις διαδικασίες για την πρόληψη και τον έλεγχο των μολυσματικών ασθενειών.
- Καταγράφουν πώς μια πιθανή δυσλειτουργία ενός οργάνου ή ενός συστήματος στο ανθρώπινο σώμα επηρεάζει τις λειτουργίες αυτού του συστήματος και των άλλων συστημάτων στο ανθρώπινο σώμα.

- Ανακαλούν το μοριακό μηχανισμό δράσης των πιο σημαντικών φαρμάκων και τις βασικές αρχές τοξικολογίας(π.χ. αντι-υπερτασικά, αντι-διαβητικά, αντι-καρκινικά).
- Αναγνωρίζουν τη σημαντική σχέση μεταξύ της θεωρίας και πρακτικής μέσω της συμμετοχής τους στο εργαστηριακό μέρος του μαθήματος. Επίσης, πρέπει να μπορούν να αποδεικνύουν την ικανότητα τους να διεξάγουν έρευνα, τόσο ατομικά όσο και σε ομάδες, σε ένα συγκεκριμένο πεδίο των Βιοϊατρικών Επιστημών.
- Επιδεικνύουν προφορικές και γραπτές δεξιότητες σε θέματα που σχετίζονται με τις Βιοϊατρικές Επιστήμες και αναπτύσσουν κριτική σκέψη και ικανότητα επίλυσης προβλημάτων.
- Αναγνωρίζουν τα θέματα Βιοηθικής και να εφαρμόζουν την ηθική ακεραιότητα ως μακροχρόνια στάση ζωής τόσο στην επαγγελματική τους σταδιοδρομία όσο και στις ερευνητικές τους δραστηριότητες.

Ευρωπαϊκό Πανεπιστήμιο Κύπρου
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ΠΑΡΑΡΤΗΜΑ V

Ερευνητικές δραστηριότητες προσωπικού και ερευνητικά εργαστήρια

The **Department of Life Sciences** is a dynamic new department within the School of Sciences, established in 2014, with significant achievements and contributions in the academic, societal and research arena in Cyprus and abroad. Research activities and related initiatives are gradually starting to build up, while the department maintains a strong commitment to advance and further enrich its research portfolio. Faculty involved in research come from a wide spectrum of the Health and Life Science areas, and thus the research portfolio of the department is multidisciplinary and multidimensional. Researchers have developed strong local and international networks and have made significant peer reviewed publications. Specific areas of research activities within the department include:

Life Sciences-Biology

- Microbiological food safety, hand hygiene, laboratory accreditation
- Novel technologies for Fresh produce Disinfection
- Identification and functional characterization of novel genes involved in cancer metastasis.
- Investigating the roles of TGFβ signaling in cancer progression and regulation of drug delivery in solid tumors
- Development of whole-body imaging mouse models for tumor growth and metastasis
- Bone metabolism, osteoporosis and osteoarthritis
- Gene networks and applications of systems biology in cancer.
- Discovery of therapeutic targets in cancer using Next Generation Sequencing (NGS) approaches
- Immune checkpoint modulation in colorectal cancer
- microRNAs in epithelial-to-mesenchymal transition (EMT) and cancer

Nutrition - Dietetics

- Relationship between Nutrition, Exercise and Obesity
- Rates of Obesity and eating habits of Cypriot Adults
- Risk factors, diagnostic tests, outcome measures and exercise treatment for patients with Type II diabetes
- Evaluation of the nutritional status and habits of young Cypriot university students
- Assessment of the anthropometric indices and nutritional habits of the first entry military men

Sports Science

- Development of new strategies for the prevention and treatment of cardiac artery disease (CAD) through exercise.
- Examine the effect of free radicals production and antioxidant supplementation on human performance and health.
- The use of eccentric exercise as a tool to induce health-promoting effects.
- Investigation of the mechanism underlying exercise-induced muscle damage
- Heat stress estimation in Cyprus Football League

Pharmaceutics

- Development and validation of novel Analytical methods for Pharmaceutical Products
- Stability studies of pharmaceutical substances and products
- Application of cyclodextrins for the optimization of physicochemical properties of pharmaceutical substances
- Regulatory framework of Medicinal products and the impact on Public Health
- Studies on the use and misuse of drugs
- *In vivo* pharmacology of antidepressant agents (behavioural and molecular aspects)
- Molecular plasticity mechanisms underlying mood stabilizer drug effects
- Impact of inositol monophosphatase blockade on lithium action in bipolar disorder (*in vivo* and *in vitro* studies)
- Role of autophagy in parkinson's disease development and treatment

Research Laboratories

Molecular and Cellular Biology Lab

The **Molecular and Cellular Biology lab** is used by various programs of the Departments of Life and Health Sciences as well as by the School of Medicine for the laboratory instruction of introductory courses in Biology and advanced courses in Molecular Biology, Cell Biology, Genetics, Biochemistry and Immunology. The laboratory has a size of approximately 85 m^2 and can accommodate 18 students for each lab session. It is designed and equipped with all the necessary instruments to perform a wide variety of techniques based on the latest advances in the field of Molecular and Cellular Biology, such as Biosafety level II laminar flow cabinets for mammalian cell culture, cell culture CO_2 incubators with O_2 control, natural convection incubators, shaking incubator, refrigerated centrifuges, waterbaths, fume hood, ice machine, PCR thermal cyclers, real-time PCR instrument, electrophoresis apparatuses for DNA and protein analysis, gel documentation system for DNA and protein gels, slide processing system for in-situ hybridization procedures, ELISA system, biochemical analyzer, UV spectrophotometer, light microscopes, inverted fluorescent microscope, balances, hotplate stirrers, microwave, liquid nitrogen tank, double sliding door 40^{o}C refrigerator, -20^{o}C refrigerators. In addition, the lab is equipped with all modern teaching tools such as computers, screens and projectors.

Pharmaceutical Chemistry and Analysis Lab

The lab of Pharmaceutical Chemistry and Analysis is suitably equipped to facilitate the training of Pharmacy and Biological Sciences students in modern Laboratory Techniques of Organic, Medicinal and Analytical Chemistry. Students are trained in classical wet lab techniques as well

as modern instrumental methods including: HPLC, Potentiometry, UV-Vis and IR Spectroscopy, Polarimetry, Flame Photometry and Fluorometry.

Laboratory of Exercise Science and Human Performance

The Laboratory of Exercise Science and Human Performance (Sports Lab), is the Health Sciences Department unit that is responsible for the systematic implementation of research projects in the field of Sports and Health Science. It was established in 2005 and since then is the only academic-oriented Sports Laboratory of its' kind in Cyprus. The lab is located at the premises of the European University Cyprus, covering a total area of 120m^2. The lab is equipped with top of the range, highly advanced exercise testing and training apparatus for the evaluation of physical performance and other equipment for blood testing and bio samples processing and storage.

Top range athletes from local and international team and individual sports are regularly visiting Sports Lab for Physical Performance Evaluation and Exercise Prescription.

Biology/Microbiology Laboratory

The Biology/Microbiology Laboratory is designed according to international quality standards and guidelines, such as the ISO17025 standard, so as to ensure that all laboratory exercises taking place are performed with safety and that the experimental results produced are both valid and reliable. The lab offers Biosafety level 2 conditions (BSL2).

It consists of a main room sitting 16 students and two ancillary rooms: a preparation room and a sterilization room, adhering to the 'no way back' principle. In addition, the lab is equipped with all appropriate culture media, reagents, microorganisms, plant and animal tissues and glassware. The lab is used by various programs of the Department of Health Sciences for the laboratory instruction of introductory and advanced courses in Biology and Microbiology.

Nutritional Assessment & Clinical Dietetics Lab Anthropometry & Body Composition Lab

This lab includes instruments for assessing body composition, namely: Scales and Height measurements, Skinfold calibers, Tapes for measuring waist, hip and head circumferences, Bioelectrical impedance for body composition measurements, Food models, Food scales, Standard food measuring cups, spoons and other cups, Food composition tables, Computers and nutrition programs for nutritional assessments.

Selected Recent Peer Reviewed Faculty Publications (2013- Onwards)

1. Margaritelis NV, **Theodorou AA,** Paschalis V, Veskoukis AS, Dipla K, Zafeiridis A, **Panayiotou G,** Vrabas IS, Kyparos A, Nikolaidis MG. Experimental verification of regression to the mean in redox biology: differential responses to exercise. Free Radic Res. 2016;50(11):1237-1244.
2. Paschalis V, **Theodorou AA,** Kyparos A, Dipla K, Zafeiridis A, **Panayiotou G**, Vrabas IS, Nikolaidis MG. Low vitamin C values are linked with decreased physical performance and increased oxidative stress: reversal by vitamin C supplementation. Eur J Nutr. 2016 Feb;55(1):45-53.
3. **Theodorou AA**, Paschalis V, Kyparos A, **Panayiotou G**, Nikolaidis MG. Passive smoking reduces and vitamin C increases exercise-induced oxidative stress: does this make passive

smoking an anti-oxidant and vitamin C a pro-oxidant stimulus? Biochem Biophys Res Commun. 2014 7;454(1):131-6.
4. Margaritelis NV, Cobley JN, Paschalis V, Veskoukis AS, **Theodorou AA**, Kyparos A, Nikolaidis MG.Going retro: Oxidative stress biomarkers in modern redox biology. Free Radic Biol Med. 2016
5. Margaritelis NV, Cobley JN, Paschalis V, Veskoukis AS, **Theodorou AA**, Kyparos A, Nikolaidis MG. Principles for integrating reactive species into in vivo biological processes: Examples from exercise physiology. Cell Signal. 2016 Apr;28(4):256-71. doi: 10.1016/j.cellsig.2015.12.011. Review.
6. Margaritelis NV, **Theodorou AA**, Baltzopoulos V, Maganaris CN, Paschalis V, Kyparos A, Nikolaidis MG. Muscle damage and inflammation after eccentric exercise: can the repeated bout effect be removed? Physiol Rep. 2015 Dec;3(12).
7. **Theodorou AA**, Gerodimos V, Karatrantou K, Paschalis V, Chanou K, Jamurtas AZ, Nikolaidis MG.Acute and Chronic Whole-Body Vibration Exercise does not Induce Health-Promoting Effects on The Blood Profile. J Hum Kinet. 2015.
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Ευρωπαϊκό Πανεπιστήμιο Κύπρου
LAUREATE INTERNATIONAL UNIVERSITIES

ΠΑΡΑΡΤΗΜΑ VI

Φοιτητική μέριμνα

Student Services

EUC challenges and supports students in order to facilitate the development of their intellectual, emotional, recreational and career growth. The service attempts to help students in coping with various problems of a personal, emotional and/or interpersonal nature that may constitute obstacles to their adjustment to University, their academic success, and personal growth. Academic advising assists students in wisely selecting and pursuing their academic studies. The orientation program is designed to welcome new students to EUC community. Housing Office is committed to creating a safe and well maintained environment that promotes community and fosters student comfort and development. All international students are covered by a health insurance. An ATM service operates on campus and it is located in the Cafeteria.

Counseling Center

Personal Counseling is provided by the Office of Student Affairs in cooperation with the Department of Social and Behavioral Studies. The specific faculty member/counselor holds a doctoral degree in Psychology and possesses a solid background in psychological counseling, as well as particular training and experience in the area of human development intervention.

The primary objective of personal counseling is to provide assistance to Cypriot and international students in meeting their psychological and emotional needs. The service is also extended to teaching and administrative personnel of the University. The service attempts to help students in coping with various problems of a personal, emotional and/or interpersonal nature that may constitute obstacles to their adjustment to University, their academic success, and personal growth.

The counselor is available for consultation throughout the academic year during scheduled hours, totaling six weekly, or by appointment, Monday to Friday.

Academic Advising

The main objective of the academic advisors is the guidance of students on the selection of courses for each semester by advising and providing information on the academic and personal issues through their studies at the European University Cyprus.

The advisor's responsibility is to assist the student in defining and developing realistic educational goals that are consonant with his/her academic abilities, skills, interests and needs. In addition advisors, provide accurate information about academic policies, university regulations and other information about the university.

Academic advisors are full time employees of Student Relationship Center at the university. The head of the center is responsible to assign the students to advisors. The objective of this arrangement is to provide students with an advisor who has the proper knowledge to assist them with their academic and career objectives. Through this arrangement a student will have the same advisor through his/her studies at the University.

After the advisor receives the list with the names of the students, he/she updates their files. More specifically the advisors keep records for all the courses taken by student, grades received for each course and other relevant info. The advisors have access to the students' academic record for advising purposes only.

The academic advisors inform all students to arrange a meeting. During the first meeting the student and the advisor get to break the ice. The student has the chance to talk about his/her career objective, skills, abilities, and find out his/her options. Students are encouraged to contact their advisor at any time during the academic year, and discuss possible problems they might have and need advice. Students, however, are required to meet with their advisor before the registration period in order to select new courses for the upcoming semester. The meeting can take place during the advisor's normal office hours or by appointment.

Prior to registration, student and advisor discuss the possible options and finally decide on the courses that the student must register during the upcoming semester. The 'Registration Form' indicating the recommended courses for registration is then completed and signed by both of them. No student can register for any course unless the form is signed by the advisor. The registration form can then be presented by the student to the Registrar's Office during the registration procedure.

Online Learning

Moodle is European University’s learning management system (LMS). Developed from a learning-centric perspective rather than a technical administrative perspective, Moodle enables faculty members to enhance their face-to-face teaching and their students’ learning by providing an online environment to distribute materials and encourage collaboration and interaction both within and outside the classroom.

Student Life
Working in partnership with the student community, the Office of Student Affairs fosters an affirming and enriching campus environment. We challenge and support students in order to facilitate their intellectual, emotional, recreational and career development. The multiple Career tools, the active college life, the modern comfortable housing facilities, promote student welfare and satisfaction. We have created a world of opportunities and we invite all students to be "Part of Our World".

Career Counseling
This service is intended to help students identify their career interests and skills. Students who are unsure of their educational goals or who are in need of general academic advice can turn to the Counseling Center for constructive help.

The EUC Career Center
The European University Cyprus Career Center is committed to providing effective and accurate career guidance to students for self-development and job placement. In today's demanding and highly challenging business environment, the great employment rate of our graduates proves the high level of education offered by European University Cyprus.

EUC Career Center Profile
The EUC Career Centre was established in 1989. Its goal is the best possible preparation of graduates for the labor market. Our logo: *Employable Graduates….That's our Job*

Employability
The EUC Career Center places great emphasis on enhancing student employability through the development of competencies. An array of services and tools has been developed to aid towards that direction.

Which soft skills increase employability?
• Analytical skills & Critical Thinking
• Communication and Language Skills
• Teamwork
• Willingness
• Leadership Skills
• Persistence and Tolerance
• Conflict Management
• Adaptability
• Stress Management
• Work ethic
• Responsibility
• Initiative and Creativity
• Organization & Efficiency

How does the EUC Career Center help students to develop employability skills?
• Internship Programs
• Personality Development Opportunities

• Field Trips
• Career Seminars
• Career Exhibition
• LPA

Career Drop In
The EUC Career Counsellor consults interested students in matters such as employment sectors, CV preparation, Job Search Methods, interview preparation, decision-making matters, and information on labor market trends.

EUC Career Exhibition
European University Cyprus has been organizing Career Exhibitions for the last 19 years. Over 55 companies participate each year, enabling students to evaluate current employment trends and become acquainted with recruitment requirements.

EUC Career Seminars
Successful professionals from various sectors of the economy are invited to share their expertise and discuss various market trends. Professionals share their knowledge and experiences, helping new students to shape a comprehensive picture of the challenges and opportunities which will lie ahead.

Bridging the Gap Program
The European University Alumni support and build networks with current students through this program. Successful alumni members join the program which aims at transferring knowledge and expertise from the alumni community to existing students.

Interview Simulation
EUC Senior students undergo an interview simulation, using hypothetical vacancies in order to improve their presentation skills and increase their self-confidence levels. The EUC Career Counsellor assesses their overall readiness levels and helps them improve their negotiating skills.

Job Finding Applications
EUC final-year students have the opportunity to complete a Job Finding Application which the Career Center uses to assist in graduates placement.

CV Writing
The EUC Career Center assists students and graduates to prepare a CVs and reviews different job search related documents such as introductory/inquiry and acceptance letters. The student is provided with a CV Writing Guide, which contains sample CVs, job search techniques, handling technical interviews and other relevant information.

Laureate Professional Assessment (LPA)
The Laureate Professional Assessment (LPA) is the first certificate of its kind in Cyprus. It has been created by Laureate International Universities and European University Cyprus specifically for bachelor's degree students. It assesses competencies identified

by companies in the job market as being the most sought-after. Using a tool designed and administered by a highly regarded external company specializing in competency assessment (CEEB/SHL Talent Management) each graduate is issued a personalized certificate and a brief guide describing the strengths each graduate has acquired and demonstrated during his/her learning experience.

Employability is a priority for the Laureate network and this pioneering tool allows employers to know a graduate's level of performance The LPA consist of three documents:

• The LPAQ - In collaboration with CEEB/SHL, which is internationally the most reputable company in Human Resource Assessment and Talent Management, European University Cyprus offers this specialized psychometric tool that evaluates eight overall competencies identified by the labor market as the most sought after. The LPA certifies the skills you have acquired during your study experience at the European University Cyprus.
• Value Added Learnings – This document describes all non-academic activities such as Internships, involvement in Erasmus programs and experiences and keeps a record of your participation in seminars, charitable action, conferences, participation in festivals, etc.

• Academic Transcript / European Diploma Supplement

Job Experience Schemes

•The Internship Program: run by the EUC Career Center for 18 years, it allows third-year and fourth-year students with high academic performance to work for a period of three months in companies that offer training opportunities in the field of their study. Each candidate is evaluated in a number of skills and competencies at the end of the program by his/her supervisor and each internee receives a Performance Appraisal and an evaluation letter.

• IAESTE: The Cyprus National Committee for IAESTE was established in 1981 and is a full member of the International Committee. The Commission was initially interpreted as follows: 'International Commission for the Exchange of Students for Technical Training ". Since 2012 European University Cyprus is a member of IAESTE Cyprus and has so far participated in the program with five students who have gained experience in the field in large organizations, both in the UK and Poland.

• ERASMUS + : The new action program Erasmus + enables young people during their course of studies or as soon as they complete their studies to undertake a minimum 2 to maximum 12 moths internship in an organization and country of his/her choice. Students who wish to gain work experience after obtaining their degree, they do so within one year from the date of their graduation. For more information please contact the ERASMUS office or visit the website http://www.euc.ac.cy/easyconsole.cfm/id/2536

• **EPSO (European Personnel Recruitment Office):** Annually the EUC Career Center organizes an informative presentation for work experience opportunities in institutions of the European Institutions in Strasbourg, Luxembourg and Brussels. For more information visit the website of EPSO.

• **Traineeships within European University Cyprus:** The School of Sciences offers to Computer Science and Engineering students, the possibility to gain work experience through short term employment as trainees in specially equipped computer labs, to assist in the development of computer games. Through employment in the workshops of the University, students gain practical knowledge and prepare for a smoother integration into the labor market.

Field Trips
EUC students, accompanied by faculty, visit businesses to form a true picture of the work environment. These visits provide an opportunity for students to speak with professionals in the industry and potential employers, thus gaining more information on the profession of their interest.

Career Centre Portal
The EUC Career Centre Portal enables students to use the following tools:
• View jobs
• Create a professional profile
• Connection with the labor market
• Finding internship positions
• Test Capabilities
• Personality Test
• Online counseling
• Electronic information on career issues
• Library of Companies

The portal operates on a pilot phase and will be available and active for use by students and graduates of the European University in June 2015.

Airport Pick-Up Services
Nicosia is about 45 kilometers from Larnaca Airport. There is a 24-hour taxi service from Larnaca to Nicosia at the approximate cost of €40. Students who require a pick-up service through EUC from Larnaca Airport must notify the Office of Student Affairs or the Admissions Office of their arrival date, flight number and time of arrival at least 48 hours prior to their arrival. University representatives will meet the student at the airport, upon request. To reserve an airport pick up service please contact Ms. Angella Georgiadou at **a.georgiadou@euc.ac.cy** or call at 0035722713185.

Orientation Program
The orientation program is designed to welcome new students to EUC community. We are aware that every beginning involves new demands, new responsibilities and new concerns. In our effort to assist students to adjust to this stage as smoothly as possible,

orientation days are organized every semester during the weeks prior to the beginning of classes. During these two weeks the university faculty and staff assist students with academic counseling and selection of courses and introduce them to the policies, regulations and functions of the university.

The orientation program includes a general briefing concerning the academic procedures, the Student Services and the Facility resources available to the students. Furthermore, important survival skills for freshmen students are discussed and a general introduction concerning Community Resources and Services is given to freshmen students. An Orientation Handbook along with maps and other useful literature is provided to the newly admitted students.

The orientation program includes a tour of the university and a sight seeing tour of the city for students coming from other countries or from other parts of Cyprus, to help acquaint them with their new home.

Housing Services
The European University Cyprus Housing Office is committed to creating a safe and well maintained environment that promotes community and fosters student comfort and development. At European University Cyprus we are very proud of our housing facilities. We offer a range of high quality housing options, all located close to campus. The housing facilities can contribute not only to your academic achievement but to your social and recreational life as well. More than a place to live and study, university accommodation will provide an opportunity for associating with men and women of your own age who share your interests, and it will be a source of unforgettable memories. While the facilities have much to offer, each has been designed to satisfy different student needs. Over 140 students can be accommodated in the University’s housing facilities.

Health Care Center
All international students are covered by a health insurance. Your insurance covers medical expenses which result as a direct consequence of an accident and health problems that arise after your arrival to Cyprus. Doctor's reports/prescriptions and receipts should be obtained for every expense and should be submitted along with the claim form which you find at the Accounts Office. Claims must be made within 15 days of the accident. Reimbursement takes place within one month. You should know that injuries resulting from the practice of hazardous sports (such as diving, racing, mountaineering, skiing, football etc.) are not covered by your insurance. The insurance company must be informed about any accident within two days of its occurring.

For more detailed information concerning your accident insurance, please ask for a copy of the insurance contract from the Office of Student Affairs. All European students must ensure to bring with them the European Health Card which provides them free access and medical treatment to all public Hospitals.

Banking Services
An ATM service is available at the entrance of the cafeteria to facilitate 18 hr banking services to our students.

Social Networking
Since August 2013 the EUC Career Center has created a page on Facebook, detailing more than 1,000 users and highlighting:
• Announcements
• Job Applicants in Cyprus and abroad
• Articles & Tips
• Vacancies

Visit us at: https://www.facebook.com/EUCCareerOffice

Lost & Found Services
Any lost and found items in the university premises are returned to the Office of Student Affairs. Students who have misplaced any personal item are advised to contact the office.

Parking Facilities
The University campus offers ample parking spaces for all its students and visitors. There are more than 900 parking places, which stand at your disposal.

Athletics

Intercollegiate Athletics
The Intercollegiate Athletic Program is viewed as an integral part of the Universities life and enjoys the support of the student body, faculty and administration. The goal of the Intercollegiate Athletic Program at EUC is to combine athletic competence with academic excellence. Like Intramural Sports, the Intercollegiate Program is designed to benefit students educationally, recreationally and socially. The program functions as a source of entertainment for the student population and also provides financial support and educational opportunities for eligible student athletes to pursue their studies.

The University is engaged in ten intercollegiate sports. The men's program includes indoor soccer, football, basketball, volleyball, handball and track and field. The women's program offers sports in volleyball, basketball, corfball and track and field. All university teams take part in the leagues organized by the Cyprus University Sports Federation.

The eligibility rules for participation in the teams are available at the Athletics Department. About 230 students, male and female, were active in the intercollegiate sports during last year. The University awards athletic scholarships to students who participate in the intercollegiate sports teams of the University. The Scholarships range from 5 to 50% and are based upon the participants' level performance. The exact amount of the athletic scholarship is determined by the guidelines set down by the Athletic Department of the University. In addition, the University encourages and rewards athletic accomplishments by presenting athletic awards to outstanding athletes. Awards are presented during the Graduation Ceremony of the University. The Athletic Department is coordinated by two professionals/coaches. The Department of Athletics is responsible for monitoring the rules and regulations of the Cyprus University Sports Federation, of various athletic associations and those of the University.

Intramural Athletics
The Universities Intramural Athletics Program offers opportunities to students to participate in a wide range of sport activities. The Intramural Athletics Program contributes to the overall personal development of the students and provides them with the chance to compete in athletic competitions. The program is viewed as a valuable part of a student's life and it provides both social and recreational benefits to the students.
The intramural activities are coordinated by the Athletics Department and are directed and supervised by qualified personnel who have degrees in physical education and substantial athletic experience. The Department of Athletics is working very closely with the Student Committee in developing the schedule, rules and regulations for the various intramural activities.

Intramural activities take place in the Athletic Center of EUC. The Center was built in 1988 and it is viewed as one of the most modern and complete athletic facilities in Cyprus. The Intramural Program organizes tournaments and special events for individual and team sports competitions. All activities are announced at the beginning of every semester by the Department of Athletics. The program involves more than 30% of the student population. Intramural sports include basketball, volleyball, soccer, handball, cricket and badminton tournaments.

Campus Recreation

Athletic Center
EUC has one of the best indoor athletic facilities in the country. With a seating capacity of over 400, the Athletic Center is used for a variety of student athletic activities including volleyball, basketball and handball. In addition, the Center is the home ground for the Handball and Futsal teams of the university, which participate in the Professional National Leagues. The Center is fully equipped with spacious locker rooms, changing rooms and shower facilities.

The Music Room
A fully equipped Music Room is situated on the ground floor of the West Block building. The Music Room is an oasis for music lovers who wish to rehearse and prepare for a music performance. To be able to use the Music Room a student must be a member of the Music Club or the Rock Club.

Physiotherapy Services
The Physiotherapy Center was established at the beginning of the Fall Semester 2001. Located on the first floor of the West Block of the main campus the center offers specialized treatment not only to athletes but also to anyone who needs physiotherapy. EUC athletes are treated free of charge whereas EUC students enjoy very low rates. In addition, the center offers treatment to the Cyprus Handball National Team and to a number of professional athletes including footballers and handball players. The Physiotherapy Center is equipped with state of the art technology, which includes massage, electrotherapy, ultra-sound, ultra-violet and laser units. The center has plans

to accommodate a hydro massage unit in the near future. The physiotherapist of the center is also the doctor of the handball teams of the University.

Gymnastic Center

As from the Fall Semester 1992 the University has established a Gymnastic Center. It was fully renovated in June 2001 to include new facilities and new weight machines. The gymnastic Center is located at the basement of the Residence Hall in the West Block of the main campus. The Center is equipped with about 30 electronic and manual universal fitness machines, lockers and separate changing rooms for male and female students. The Center employs professional trainers who can offer advice and supervise weight loss, toning, muscle building, physiotherapy and conditioning. In addition, students can follow aerobic programs as well as individual fitness programs supervised by trainers. The Gymnastic Center is open from 10:30 to 21:30 on weekends

Alumni

Graduates of the European University Cyprus constitute an inextricable part and are the best group of ambassadors in the society of Cyprus and the Cypriot and international scientific scene. The relation of the European University Cyprus with its alumni does not end with their graduation. Undoubtedly, the superb reputation of the Institution is reflected on the general recognition of the awarded degrees, while the graduates' acknowledged status in the academic and professional arena is indicative of the University's high level of educational services.

The Alumni Committee consists of nine members which are in charge for planning the year's activities. The Alumni Association maintains a website, a Facebook page, Twitter and an alumni app to facilitate communication among its members. Furthermore, a Business Directory is been developed so that every Alumni can locate friends in their working environment. LLLPs, Information campaigns, benevolent activities, outings, Alumni Awards are but a few of the activities organized by the Alumni Association.

For more information please contact:

- The Alumni Association at: **alumni@euc.ac.cy**
- The University:
  Eleni Markantoni,
  Director
  Office of Student Affairs
  Tel: 00357-22713000
  Fax: 00357-22713070
  Email: E.Markantoni@euc.ac.cy

The current President of European University Cyprus & Cyprus College Alumni Association is Mr. Yiannos Spyrou. For more information and Alumni news please visit the EUC Alumni Website at: http://alumni.euc.ac.cy/

Office of Student Affairs

The Office of Student Affairs coordinates student services and orchestrates campus life and activities. The Office supports and challenges students to bring out the very best in

them. Students are encouraged to develop, explore and express themselves as individuals and as members of the community in an environment of mutual respect and safety. We are committed to instilling within our students a feeling of active involvement and social responsibility, which helps them develop into pioneering leaders.

The Office of Student Affairs is situated on the ground floor of the North Block Building and it is open Monday to Friday.

Winter Hours	8:00am - 1:30pm 3:00pm - 6:30pm
Summer Hours	8:00am - 2:00pm 4:00pm - 7:00pm

Student Affair Email Directory:

Title	Name	Telephone	Email
Director of Student Affairs	Eleni Markantoni	22713152	E.Markantoni@euc.ac.cy
Student Affairs Officer	Angela Georgiadou	22713185	A.Georgiadou@euc.ac.cy
Housing Officer	Andri Stylianou	22713279	A.Stylianou@euc.ac.cy
Career Guidance Officer	Christie Georgiou	22713069	Ch.georgiou@euc.ac.cy

Student Life & Activities

Student life is an important aspect of university education as it can offer a unique opportunity to develop leadership and communication skills. Campus life at EUC focuses on the intellectual, occupational, social and cultural growth and nurturing of students. One of the many responsibilities we have towards our students is that of creating an interesting and supportive environment that meets the wide range of interests and talents of EUC students.

Each student is urged to become involved with one or more clubs and student organizations. The University offers a variety of clubs and student Associations, 10 intercollegiate teams, sports, and student government. Extra curricular activities ranging from Talent Shows, Auction House, BBQs, Parties, Excursions and Festivals, complement an active campus life and offer ample opportunity for fun and memories.

The EUC Calendar of Activities

The Office of Student Affairs is responsible to develop a master Calendar of Activities. In collaboration with the Student Union, the International Student Community and the numerous Clubs and Student Associations. A Calendar of Activities is developed on a

yearly basis and is circulated at the beginning of each academic year. For more information and to be able to view the Calendar of Activities, please select appropriate month.

Student Union

EUC Student Union was founded in 1986. EUC Student Union participates in campus governance and voices student views and opinions. Members of the Student Union participate in other university committees, thus, practically assisting in the constructive development of the University.

The student body elects the Student Union annually and it consists of 21 members. The Student Union is responsible for organizing the General Assembly in which all students participate and present their views on various issues concerning academic and student life. The Student Union exists and functions under the rules and regulations stipulated by its Constitution.

International Student Associations

There are numerous International student associations representing the different ethnic groups of the University, such as the Russian Students' Association, the Greek Students' Association, the Arab Students' Association, the Bulgarian Students' Association, the African Students' Association, and the Chinese Students' Association. Through these Associations, international students have the opportunity to promote their history, customs and culture through the various activities they organize.

Clubs

Your University years can be the best years of your life, filled with friends, fun and unforgettable memories. The way to make the most of these years is to become a living part of University life. Get involved, there's something for every interest!

Clubs and Organizations provide students with opportunities for social interaction, recreation, leadership training and enhancement of academic interests. Involvement in organizations for most students is an important aspect of their education.

The Office of Student Affairs is here to help you join a club or start a new one, giving you all the resources you need. In order to register a new club you need to have at least fourteen members. Each club is given an annual budget for educational and leisure activities and also for equipment necessary for the club's operation. In order for a club to operate it also needs an Advisor and a President. All Clubs and Organizations at EUC are open to everyone regardless of race, gender, religion or national origin.

Students who wish to register to clubs please complete and submit the form below. Students may choose from a variety of clubs:

Leisure Clubs/Όμιλοι Αναψυχής: -Art & Photography Club/ Όμιλος Τέχνης και Φωτογραφίας -Basketball Club/ Όμιλος Καλαθόσφαιρας -Bowling Club/ Όμιλος Μπόουλιγκ -Dance Club/Χορευτικός Όμιλος -Futsal Club/Ποδοσφαιρικός Όμιλος -Gamers' Club/ Όμιλος Ηλεκτρονικών Παιχνιδιών -Hiking Club/ Όμιλος Πεζοπορίας -Handicraft Club/ Όμιλος Χειροτεχνίας -Music Club/ Όμιλος Μουσικής -Media Club/Όμιλος Μέσων Μαζικής Ενημέρωσης -Shooting Club/ Σκοπευτικός Όμιλος -Yoga Club/ Όμιλος Γιόγκα -Zumba Club	**Social Clubs / Κοινωνικοί Όμιλοι:** -Ecology Club/ Όμιλος Οικολογίας -Intercultural Communication Club/ Όμιλος Επικοινωνίας και Διαπολιτισμικότητας -EUC Volunteer's Society/Όμιλος Εθελοντών ΕΠΚ -LGBT Society (Lesbian, Gay, Bisexual and Transgender students)/ ΛΟΑΤ -Psychology Club/ Όμιλος Ψυχολογίας -Social Work Club/ Όμιλος Κοινωνικής Εργασίας
Educational Clubs/Εκπαιδευτικοί Όμιλοι: -Beauticians' Club/ Όμιλος Αισθητικής -Business Society/ Όμιλος «The Business Society» -Computer Club/ Όμιλος Ηλεκτρονικών Υπολογιστών -Chamber Music & Guitar Club/ Μουσική Δωματίου και Όμιλος Κιθάρας -Drama Club/ Όμιλος Θεάτρου -Education Club/ Όμιλος Εκπαιδευτικών -Erasmus Club -European University Cyprus Medical School Society -EUCOFIN -Graphic Design Club/Όμιλος Γραφικών Τεχνών -HERMES-International Medical Student Club/ Διεθνής Ιατρικός Φοιτητικός Όμιλος ΕΠΚ -IEEE EUC Club -Law Society/ Όμιλος Νομικής	**Student Publications/Φοιτητικά Έντυπα:** Cadences The Observer Ένθα - Περιοδικό με Επίκαιρα Νομικά Θέματα και Αναλύσεις

-Literary Society/Όμιλος Λογοτεχνίας -Nursing Club/ Όμιλος Νοσηλευτικής -Nutrition and Dietetic Society/Όμιλος Διατροφής και Διαιτολογίας -Physiotherapy Club/Όμιλος Φυσικοθεραπείας -Radiology-Radiotherapy Club/ Όμιλος Ακτινολογίας-Ακτινοθεραπείας -Sign Language Club/ Όμιλος Νοηματικής Γλώσσας -Speech and Language Club/ Όμιλος Λογοθεραπείας -Linguistics' Club/ Όμιλος Γλωσσολογίας -Music Education/ Μουσικοπαιδαγωγικός Όμιλος -Piano Pedagogy Club/ Όμιλος Παιδαγωγικής Πιάνου -Robotics' Club / Όμιλος Ρομποτικής -Tourism and Hospitality Management Club/ Όμιλος Τουριστικής Διοίκησης	

Student Publications

Whether a student's creative interests lie in essay writing, literature, photography or sports coverage, student publications will have a place for him/her. EUC student publications serve as the means of exercising creative thinking, airing views and capturing unforgettable memories.

- **Cadences**

A journal of Literature and Arts in Cyprus is a multilingual literary magazine. The objective is to provide a service to the writing community of the island and Cypriot expatriate communities, to publish high quality work by established poets, fiction writers, and critics as well as student and less-known writers from the community. It is open to writing in all languages. Students serve as Editorial assistants and are appointed by the Department of Humanities.

- **The Observer**

The Observer is EUC student newspaper. Since 1985 The Observer has been the main medium for EUC students to express their views, ideas and opinions. The editorial team consists of a very dynamic group of students with a wide spectrum of interests. The Observer doesn't only highlight and report on current issues and events but it also covers a wide range of interests such as business and Hi-Tech topics, social and cultural issues, women's issues, entertainment and much, much more. The newspaper is issued on a bi-monthly basis and it is distributed free of charge to all students. The Observer is also circulated to the general public in order to inform the community about student and university activities and events. The Observer welcomes new members on an ongoing

basis and for more information students are encouraged to contact the Chief Editor of the newspaper. Contributions, ad revenues and University funds cover the cost of printing “The Observer”.

- **ἔνθα Student Law Publication**

The club members review law articles for this student Law Review Magazine, which is published in electronic and paper form once or twice a year. The review analyzes and provides comments on law cases and flash news of legal actuality written exclusively by law students. The Editorial board is made up of faculty members from the Department of Law. ἔνθα Student Law Publication is also a useful resource of information on contemporary legal issues. Through participation in this club, students can achieve a certain level of professional credibility which may be helpful in their future careers.

Students Email

Live@edu provides students and alumni long-term, primary e-mail addresses and other applications they can use to collaborate and communicate online. Microsoft Live@edu is an exciting new service that university is proud to offer to its students. With Live@edu students will have access to a variety of powerful organizational tools and a robust new method of communicating with their professors, family and friends.

ΠΑΡΑΡΤΗΜΑ VII

Δείγμα Συμβολαίου προσωπικού

CONTRACT OF APPOINTMENT

This Agreement (the "Agreement") is made the 16th day of July 2014 between:

A.S. CYPRUS COLLEGE LIMITED, a company incorporated in the Republic of Cyprus, with registration number HE 83353, of 6, Diogenous Street, 1516 Egkomi, Nicosia, Cyprus (the "Employer"); and

Dr of 10A, Asklipiou, Aglantzia, 2123 Nicosia (the "Employee").

Collectively referred to as the Parties and Party means any one of them.

WHEREAS

A. The Employer is the proprietor of a university called European University Cyprus (the "University") and currently operates a campus in Nicosia.

B. The Employer wishes to fill a vacancy in its staff, a post for which the Employee has applied for and wishes to accept upon the following terms and conditions.

NOW IT IS HEREBY AGREED as follows:-

Term of Engagement

1. The Employer offers and the Employee accepts the appointment to the position of Faculty Member of Biological Sciences with the rank of Assistant Professor as of the 29th of September 2014 subject to securing at his own cost the required residence and employment permit, if this is required.

Duties

2. (a) During the continuance of his/her appointment hereunder the Employee agrees to devote his/her full time to teaching for the University and to accept other collateral duties including, without limitation, the advising of students and administrative work as are usually associated with this position and may be prescribed by the University through its administrative officers.

   (b) The Employer shall have no obligation to allocate or assign to the Employee any powers or duties or to give or supply to the Employee any work, and the Employer may at any time and/or from time to time during the period of notice specified below place the Employee on paid leave and exclude him/her from its offices without giving any explanation. The Employee's salary will not cease to be payable for the sole reason that the Employee has been placed on paid leave or has been excluded in the aforesaid manner.

3. During the continuance of his/her appointment hereunder the Employee will not without the previous consent of the Employer enter the service of, or be employed in any capacity, or for any purpose whatsoever, or for any part of his/her time by any person, firm or company other than the Employer. Furthermore the Employee will not be engaged or interested in undertaking or carrying on any business of a similar nature to or

competing with the University and will in all things use his/her best endeavours to promote the interests of the University.

4. It is understood that the University places confidence and trust in the integrity and character of the Employee. It is therefore agreed that the Employee shall at all times conduct himself/herself in a manner which is in keeping with the high personal moral and intellectual standards of the University. The University prescribes to the principles of Academic Freedom and the Employee agrees to adhere to such principles.

5. The faculty & full time teaching personnel handbook (the "Faculty Handbook") and the Charter of the University and its internal regulations (the "Charter") provide more explanation about the Terms and Conditions of Work for the University's Faculty. The Faculty Handbook and the Charter are documents of the University in which University Policies, Regulations, Procedures and other related information are found. The Employee confirms that he/she has read the Faculty Handbook and the Charter as these are amended from time to time and agrees to abide by them.

6. As a member of the Laureate universities network, the Employee has adopted the Laureate Code of Conduct and Ethics (the "Code"). It is the responsibility of each Employee to read the Code carefully and uphold its standards. The Code, as well as other informative related documents are listed on the University's intranet. The Employee confirms that he/she has read the Code, as these are amended from time to time and agrees to abide by them.

Hours of Work

7. The Employer and the Employee agree that the Employee Member will be employed for full-time teaching which will be construed to 12 (twelve) credit hours of course-work a semester during a regular 16-week semester and 3-4 credit hours of course-work during the summer session.

8. To comply with the provisions of the relevant law, you agree to work extra time without pay, if the need arises.

9. You also agree to comply with such procedures for the recording of hours worked, as the Employer may require from time to time.

Probationary Period

10. Newly appointed Employees will be employed for a probationary period of nine months (9) from the first day of employment, which will end on the 29th of June 2015.

11. After the successful completion of the probationary period, if both parties mutually agree, the Employee will assume permanent employment status.

Remuneration

12. The Employer will, during the continuance of the Agreement, pay the Employee a monthly salary payable in arrears at the end of each month. The date of payment of the monthly salary can be changed by a decision of the Employer for operational purposes.

13. The Employer agrees to pay the Employee a gross monthly salary of euro (€).

14. The Employer agrees to pay the Employee a thirteenth (13th) salary in December of each year, after the completion of the probationary period.

Holidays

15. The public holidays currently observed by the Employer are:-

- New Year's Day
- January 6th - (Epiphany Day)
- Green Monday
- March 25th
- April 1st
- Good Friday
- Easter Monday
- May 1st
- Ascension Day
- August 15th
- October 1st
- October 28th
- December 24th – (Christmas Eve)
- December 25th – (Christmas Day)
- December 26th – (Boxing Day)

When the government declares a day as a public holiday, the Employer, may or may not in its sole discretion grant this holiday.

Annual Leave

16. The Faculty Member is entitled of one month vacation which will be the month of August, while the rest of the year (September 1st to July 31st) is considered working period. This leave shall be reduced accordingly if during a year the Employee is employed for a period of less than 50 weeks. If however the Employee is employed for less than 13 weeks during the year then the Employee is not entitled to leave pursuant to the Paid Annual Leave Law No. 8/1967, as amended.

17. Leave not taken during a year is not transferred to the next year without the written consent of the Employer.

Fringe Benefits

18. The Employer and the Employee mutually agree that the Employee is entitled if he/she chooses to participate in the Provident Fund, after the completion of the probationary period. The Employee has to inform in writing the Human Resources Department, if he/she chooses to participate in the Provident Fund.

19. The Employee will be entitled if he/she chooses to participate in the University sponsored Medical Plan, after the completion of the probationary period. The Employee has to inform in writing the Human Resources Department, if he/she chooses to participate in the Medical Plan.

20. The Employee will subject to the provisions of clause 16 above be granted paid leave during the period of the University vacations (i.e. Christmas, Easter and Summer).

21. Subject to obtaining the Employers written approval, the Employee will be entitled to one year unpaid leave of absence following the completion of five (5) years full-time employment.

Intellectual Property

22. (a) The Employee hereby assigns, transfers and sets over (and agrees to assign, transfer, and set over) absolutely and without reservation to the Employer any and all rights, titles and interests of the Employee in and to any intellectual property rights of any kind (including but not limited to patents, trademarks, copyrights, know how, trade secrets, designs, mask works, moral rights and artist's rights) which the Employee may create, discover, make, invent, conceive, develop or design, solely or jointly with others, during performance of this Agreement, or which was directly or indirectly created, discovered, made, invented, conceived, developed or designed at the expense of the Employer ("Work Product"). Such Work Product may include, without limitation, products, improvements, processes, reports, recommendations, strategic plans, models (including, without limitation, all co-efficients and mathematical equations comprising same, the form of the model, underlying algorithms, outputs arising from use of the model and derivative works), questionnaires, interview responses, algorithms, computer programs and software (including, without limitation, source code, documentation, "look and feel", screen displays, structure, sequence, and organization), know-how, methods, processes, devices, and other technologies, and all documentation and copies of all of the foregoing in every form and medium. The Employee agrees he/she shall retain no rights to use the Work Product and agrees not to challenge the validity of the Employer's ownership of the Work Product.

23. The Employee hereby grants to the Employer a non-exclusive, royalty-free, irrevocable and worldwide right, with rights to sublicense through multiple tiers of sublicensees, to distribute, reproduce, make derivative works of, publicly perform, and publicly display in any form or medium, whether now known or later developed, make, have made, use, sell, import, and offer for sale any and all pre-existing, independently developed, or third party technology which Employee intends to provide to the Employer for use in connection with the Work Product by the Employer ("Licensed Technology"). The Employee agrees to identify in writing any components of Licensed Technology provided to the Employer hereunder.

24. The Employee further agrees to execute any further documents in the future necessary to effect such an assignment and/or to assist the Employer in securing intellectual property protection for the Work Product, including the giving of testimony, and to assist in obtaining any extension, validation, reissue, continuance or renewal of such intellectual property protection, and to assist in the maintenance, enforcement, license, assignment, transfer or conveyance of rights with respect to the Work Product, for no additional consideration.

Termination of Agreement

25. The appointment of the Employee may be terminated at any time by either party hereto giving to the other previous notice in writing in that behalf as is required by law or by the Employer paying to the Employee in addition to any other salary due to the Employee a sum equal to the notice required by law in lieu of notice and upon expiration of such

notice (whether the same will expire at the end of any year of service or any other time whatsoever) or such payment being made by the Employer (as the case may be) the Employee's appointment shall forthwith be terminated.

26. In case of war or any event in which the University by reason of unforeseen factors not of its own doing cannot function, this agreement is mutually terminated without any further notice.

Employer's property

27. Upon termination of the Employee's employment the Employee must immediately deliver to the Employer all documents, records, compact discs, materials, equipment, building and parking access cards or other property of the Employer or its customers which are in the Employee's possession. The Employee must not keep copies, extracts or parts thereof.

Deductions

28. (a) The Employer has the right at any time during the Employee's employment or upon termination in any way, to deduct from the Employee salary and/or benefits and/or any other amount payable to the Employee, all amounts the Employee owes the Employer and the Employee hereby grants authorization to the Employer for this deduction.

(b) Examples of amounts that may be owed to the Employer and the conditions under which the Employer may exercise its right to recover amounts from the Employee by deduction from the Employee's salary and other payments (this list is not exhaustive and its purpose is to give an example) are:-

(i) any overpayment made to him/her (including overpayment of salary and overpayment of costs);
(ii) any loan;
(iii) any salary advance payment;
(iv) any unauthorized expenses; and
(v) any period of leave beyond regular and any unauthorized period of absence from work.

Counterparts

29. This Agreement may be signed in counterparts.

Governing Law and Jurisdiction

30. This Agreement shall be governed by and construed in accordance with the laws of Cyprus and the Parties hereby irrevocably agree to submit to the non-exclusive jurisdiction of the Cyprus courts.

Amendment:

31. This Agreement contains all the terms of the Employee's with the Employer and replaces any employment agreement (oral or otherwise) with the Employer which is terminated by mutual agreement.

32. No change, amendment of any provision or waiver of any provision shall apply unless made in writing and signed both by the Employee and by the Employer.

IN WITNESS WHEREOF we have hereunto set our respective signatures and seals on the day and year herein before given.

EMPLOYER/

EMPLOYEE

WITNESSES

ΠΑΡΑΡΤΗΜΑ VIII

Diploma Supplement

European University Cyprus
LAUREATE INTERNATIONAL UNIVERSITIES

DIPLOMA SUPPLEMENT

This Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgments, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1	Last name(s)	1.2	First name(s)
1.3	Date of birth (dd/mm/yyyy)	1.4	Student identification number or code (if available)

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1	Name of qualification and (if applicable) title conferred Bachelor of Science	2.2	Main field(s) of study for the qualification Computer Science
2.3	Name and status of awarding institution (in original language) Ευρωπαϊκό Πανεπιστήμιο Κύπρου - European University Cyprus. E.U.C. A private University officially recognized by the Republic of Cyprus based on the decision of the Council of Ministers (Decision No.: 66.065, 12th September 2007).	2.4	Name and status of institution (if different from 2.3) administering studies (in original language) Same as 2.3
2.5	Language(s) of instruction/examination English		

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1	Level of qualification First cycle degree (Bachelor)	3.2	Official length of programme Four Academic Years (Full-time mode, 8 Semesters, 240 ECTS)
3.3	Access requirements(s) Apolyterion or its equivalent. Other access routes,including direct application to institution; further details at www.euc.ac.cy		

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1	Mode of study Full-Time attendance	4.2	Programme requirements A student must satisfy the program graduation requirements as follows and as further described in the University's Bulletin (www.euc.ac.cy).

Degree Requirements	EUC Credits	ECTS
General Education Requirements	24	38
Mathematics Requirements	17	31
Computer Science Req.	75	148
Free Electives	12	23
Total Requirements	**128**	**240**

A minimum Cumulative Grade Point Average (G.P.A.) of 2,00/4,00 is required for award of this qualification (1st Cycle Degree).

4.3 Programme details (e.g. modules or units studied), and the individual grades/marks/credits obtained

Please see next page

4.3 PROGRAMME DETAILS (e.g. modules or units studied), and the individual grades/marks/credits obtained

CODE	SUBJECT	Semester F = Fall S = Spring K = Summer	EUC Credits	ECTS Credits	Grade
MAT101	Calc.& Anal. Geom. I	F2007	0	0	W8
ENG103	Instr. in Expository Writing	F2007	3	6	B+
CSC131	Programming Principles I	F2007	3	6	A
COM101	Public Speaking	F2007	3	5	B
BUS101	Intro. to Business	F2007	3	5	B
PSY103	Intr. to Psychology	S2008	3	6	C
CSC132	Programming Principles II	S2008	3	6	A
ENG104	Technical Writing	S2008	3	5	A
HIS142	The Middle Ages	S2008	3	5	A
MAT101	Calc.& Anal. Geom. I	S2008	4	7	B
SOC101	Intro. to Sociology	F2008	3	5	A
CSC230	System Analysis and Design	F2008	3	5	A
MAT102	Calc.& Anal. Geom.II	F2008	4	7	C
CSC120	Discrete Structures	F2008	3	6	D+
GRA220	Introduction to Photography	F2008	3	6	A
MAT203	Multivar. Calculus	S2009	3	6	C+
CSC231	Visual Programming	S2009	3	6	A
ECO111	Principles of Economics	S2009	3	5	C
CSC213	Digital Logic	S2009	3	5	A
CSC205	Data Structures & Algorithms	S2009	3	6	B+
MAT206	Linear Algebra	K2009	3	5	B
HIS126	History of Cyprus	K2009	3	5	A
CSC214	Computer Organization & Architecture	F2009	3	6	A
CSC323	Programming Languages	F2009	3	6	A
CSC331	Database Mgt Systems	F2009	3	6	A
HOM110	Intr.to Hospit. Mgt.	F2009	3	6	C+
MAT217	Probability & Statistics	F2009	3	6	A
CSC322	Data Com. & Computer Networks	F2009	3	6	C+
CSC305	Assembly Language	F2009	3	5	C
CSC401	Theory of Computation	S2010	3	6	B
CSC328	Computer Graphics I	S2010	3	5	C+
CSC327	Operating Systems	S2010	3	6	A
CSC326	Programming in Unix-line Environment	S2010	3	6	B+
CSC209	Web Programming	S2010	3	6	A
CSC133	Web Technologies	S2010	3	5	B+
PSY213	Social Psychology	K2010	3	6	B+
CSC490	Senior Project	F2010	3	10	A
CSC330	Fundam. Of Distributed System	F2010	3	6	C+
CSC407	Algorithms	F2010	3	5	A
CSC411	Software Engineering I	F2010	3	6	A
CSC341	Human Computer Interaction	S2011	3	5	B
CSC425	Manag. Info. Systems	S2011	3	7	C+
CSC412	Software Engineering II	S2011	3	6	A
	Total Number of EUC Credits & ECTS		128	244	**GPA:**
	Total Number of Transferred Credits & ECTS Credits		0	0	**3,32/4,00**

4.4 Grading scheme and, if available, grade distribution guidance

Letter Grade	Grade Meaning	Grade Points	Percentage Grade	Letter Grade	Grade Meaning	Grade Points	Percentage Grade
A	Excellent	4.0	90 and above	D	Poor	1.0	60-64
B+	Very Good	3.5	85-89	F	Failure	0	-
B	Good	3.0	80-84	I	Incomplete	0	-
C+	Above Average	2.5	75-79	W	Withdrawal	0	-
C	Average	2.0	70-74	P	Pass	0	-
D+	Below Average	1.5	65-69	AU	Audit	0	-
				TR	Transferred	0	-

4.5 Overall classification of the qualification (in original language)

3,32/4,00 Pass

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study

Access to Second Cycle in Cyprus and abroad

5.2 Professional status

Not Applicable

6. ADDITIONAL INFORMATION

6.1 Additional information

Not Applicable

6.2 Further information sources

European University Cyprus http://www.euc.ac.cy
Ministry of Education http://www.moec.gov.cy
European Union http://www.europa.eu.int
NARIC (Cyprus) http://www.kysats.ac.cy
ENIC http://www.enic-naric.net

7. CERTIFICATION OF THE SUPPLEMENT

7.1 Date

06 06 2011

7.2 Signature

Christoforos Hadjikyprianou

7.3 Capacity

Registrar,
European University Cyprus

7.4 Official stamp or seal

European University Cyprus

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

Please see attached

Ευρωπαϊκό
Πανεπιστήμιο Κύπρου
LAUREATE INTERNATIONAL UNIVERSITIES

ΠΑΡΑΡΤΗΜΑ ΙΧ

ΒΙΟΓΡΑΦΙΚΟ ΣΗΜΕΙΩΜΑ ΓΙΑ ΕΠΙΠΛΕΟΝ ΔΙΔΑΣΚΟΝΤΑ

CURRICULUM VITAE

PERSONAL INFORMATION

Name: **LOUCA, LOUCAS T.**
E-mail: Louca.L@cytanet.com.cy
Date of Birth: 21 February 1976
Nationality: Greek Cypriot

EDUCATIONAL BACKGROUND

2000 – 2004	Ph. D., Science Education, Department of Curriculum and Instruction, University of Maryland, College Park, USA (GPA: 3.967 out of 4) *Dissertation topic*: Case studies of fifth-grade student modeling in science through programming: comparison of modeling practices and conversations
2001 – 2004	Master of Science, Biology, College of Life Sciences, University of Maryland, College Park, USA (GPA: 3.967 out of 4)
1999 – 2000	Master of Education in Science Education, Department of Curriculum and Instruction, University of Maryland, College Park, USA (GPA: 3.9 out of 4)
Summer 1998	Summer Institute in Physics and Physical Science for Pre-college Teachers, Center for Physics Education, Physics Department, University of Washington, Seattle, Washington, USA
1996 – 1999	B.A. in Science Education, Department of Educational Sciences, University of Cyprus, Nicosia, Cyprus (GPA 9.02 out of 10)
June 1993	School Leaving Certificate (Apolyterion), Acropolis Lyceum, Nicosia, Cyprus

RESEARCH EXPERIENCE

Oct 2016 – present	Researcher/Partner, *Heads Using Professional Learning Communities* (HeadsUP), Project funded as an ERASMUS+ project (#Erasmus+ VG-IN-BW-16-35-022992)
Sept 2014 – present	Researcher/Partner, *STEM Teacher training innovation for Gender balance* (STING), Project funded as an ERASMUS+ project (#Erasmus+ 2014-1-ES01-KA201-003688)
Sept. 2011 – Aug. 2014	Researcher/Partner, *Developing Early Science and Mathematics Literacy*, Research Project funded by the Cyprus Research Foundation: ΑΝΘΡΩΠΙΣΤΙΚΕΣ/ΠΑΙΔΙ/0609(ΒΕ)/4
May 2009 – April 2011	Researcher/Partner, *Science-Teacher Education Advanced Methods*. A coordination and support action under FP7, SiS 2008, action 2.2.1.1: Innovative Methods in Science Education, Grant Agreement Number SIS-CT-2009-234870
Sept. 2009 – Dec. 2009	Researcher, *Evaluation of pilot use of ICT in teaching and learning in Elementary and Kindergarten Education in Cyprus*, Cyprus Pedagogical Institution, Nicosia, Cyprus (Π.Ι. 06/2009)
Sept. 2008 – Dec. 2008	Researcher, *Evaluation of pilot use of ICT in teaching and learning in Middle and High School Education in Cyprus*, Cyprus Pedagogical Institution, Nicosia, Cyprus (Π.Ι. 08/2008)
Dec. 2008 – Feb. 2010	Individual Researcher/Partner, *A web based learning environment for promoting students' argumentation skills and epistemological understanding across scientific and social domains*, Research Project funded by the Cyprus Research Foundation, ΔΙΣΔΑΚΤΩΡ/ΔΙΣΕΚ/0308/43
Oct. 2007 – Aug. 2008	Individual Researcher/Partner, *The development of a research methodology for analyzing videotaped science lessons for supporting the professional development of pre-service and in-service science teachers of Cyprus*, Research Project funded by the Cyprus Research Foundation, ΕΝΙΣΧ/0505/44

Dec. 2006 – Dec. 2007	Empowering Pupils: Enhancing Learning (EPEL), Comenius Research Program, European Commission
July 2006 – Oct. 2007	Postdoctoral Research Fellowship, *The development of a research methodology for analyzing videotaped science lessons for supporting the professional development of pre-service and in-service science teachers of Cyprus*, Research Project funded by the Cyprus Research Foundation, Award # ΕΝΙΣΧ/0505/44
July 2004 – June 2006	Postdoctoral Research Fellowship, *Documenting the use of computer-based programming tools for developing models of physical and biological phenomena by fifth grade students*, Research Project funded by the Cyprus Research Foundation, Award# ΕΝΙΣΧ/0603/09
2004 – 2005	Experienced Researcher, *Students in Research and Development program (MEPA)*, Cyprus Research Promotion Foundation & Ministry of Education and Culture, Cyprus (Award# MEPA/0904/54)
Sept. 02 – Dec. 02	*Implications of computer-based programming environments as modeling tools for student thinking and learning in Physical Science*, Dissertation Study, Piney Branch Elementary School, Montgomery County, USA
Feb. 00 – May 00	*The impact of computer-based programming environment in students thinking and learning in science*, pilot study for my dissertation work, Burning Tree Elementary School, Maryland, USA
1999 – 2003	*Analysis of student thinking in physical science, "Case studies of student inquiry in science*", University of Maryland, College Park, Maryland, USA
Jan. 99 – June 99	*The Use of Stagecast Creator in Constructing Modeling skills in Physical Science: The case of the Single Lens Camera*, University of Cyprus, Cyprus
1998 – 1999	*The development of pre-service teachers' conceptual understanding in electric circuits*, undergraduate senior project, University of Cyprus, Cyprus

WORK EXPERIENCE

Sep 2016 – present	Director, The Inquiry in Science and Math Education Research Group, Department of Education Sciences, European University-Cyprus
Feb. 2014 – present	Associate Professor of Science Education, Department of Education Sciences, European University-Cyprus
Sep. 2014-Aug 2016	Chair, Department of Education Sciences, European University-Cyprus
Oct. 2007 – Jan. 2014	Assistant Professor of Science Education, Department of Education Sciences, European University-Cyprus
Jan. 2008 – Aug 2016	Director, The Research and Learning Laboratory in Science, Mathematics & Social Studies Education, Department of Education Sciences, European University-Cyprus
2009 – 2010	Coordinator, Professional development of teachers for new ICT applications, H.S. Data Ltd. & Ministry of Education, Nicosia, Cyprus
2005 – 2007	Part-time Lecturer, Department of Education, Intercollege, Nicosia, Cyprus.
2006 – 2007	Postdoctoral Research Associate, Learning in Science Group, Department of Educational Sciences, University of Cyprus.
2004 – 2009	Independent Consultant, Stagecast Creator, INC, USA
2004 – 2006	Postdoctoral Research Associate, Learning in Science Group, Department of Educational Sciences, University of Cyprus.
2002 – 2003	Teacher, Science/Computer after-school Program, Piney Branch Elementary School, Montgomery County, Maryland, USA
2000 – 2003	Research Assistant, Department of Curriculum and Instruction, University of Maryland College Park, USA
1999 – 2000	Student-teacher supervisor, Department of Curriculum and Instruction, University of Maryland, College Park, USA
1999 – 2000	Teaching Assistant, EDCI 280: School Service Seminar, Department of Curriculum and Instruction, University of Maryland, College Park, USA

1998 – 1999	Laboratory Research Assistant, Institute of Neurology and Genetics & Department of Chemistry and Biology, University of Cyprus, Nicosia, Cyprus
1996 – 1997	Research Assistant, Department of Educational Sciences, University of Cyprus, Nicosia, Cyprus

CONTRIBUTION TO TEACHERS' PROFESSIONAL DEVELOPMENT

Sept. 2016	Instructor, Professional development seminar for kindergarten school teachers for the new curriculum for science education, Pedagogical Institution of Cyprus, Ministry of Education & Culture
2014-2016	Instructor, Professional development program for teaching Science as Inquiry, 6th Elementary School Lakatamia, Nicosia, Cyprus funded by Erasmus+ Program *STEM Teacher training innovation for Gender balance* (STING), (#Erasmus+ 2014-1-ES01-KA201-003688)
2012-2013	Instructor, Professional development seminar for kindergarten school teachers for the new curriculum for science education, Pedagogical Institution of Cyprus, Ministry of Education & Culture
2012-2013	Instructor, Professional Development seminar for Science Education for kindergarten school teachers, European University-Cyprus, funded by the Cyprus Research Foundation (Project: *Developing Early Science and Mathematics Literacy*, ΑΝΘΡΩΠΙΣΤΙΚΕΣ/ΠΑΙΔΙ/0609(ΒΕ)/4)
2011-2012	Instructor, Professional Development seminar for Science Education for kindergarten school teachers, European University-Cyprus, funded by the Cyprus Research Foundation (Project: *Developing Early Science and Mathematics Literacy*, ΑΝΘΡΩΠΙΣΤΙΚΕΣ/ΠΑΙΔΙ/0609(ΒΕ)/4)
2011-2012	Instructor, Professional development seminar for kindergarten school teachers for the new curriculum for science education, Pedagogical Institution of Cyprus, Ministry of Education & Culture
2011	Instructor, Professional development seminar for middle and high school physics teachers for the new curriculum for Middle and High School Physics, Ministry of Education & Culture
2010- 2011	Instructor, Professional development seminar for kindergarten teachers in science, European University-Cyprus, funded by the *Science-Teacher Education Advanced Methods* Project (Grant Agreement Number SIS-CT-2009-234870)
2007 –2008	Instructor, Professional development seminar for elementary school teachers for the use of Stagecast Creator for supporting teaching and learning in Science and Mathematics, European University-Cyprus
2006 –2007	Instructor, Professional development seminar for elementary teachers in science, Pedagogical Institute of Cyprus *Title: The development o skills for scientific thinking and argumentation through teaching science at the elementary school: From theory to practice (ΔΕ12.007)*
2006	Instructor, Professional development seminar for elementary teachers for the integration of ICT in education (P5), University of Cyprus & Pedagogical Institution of Cyprus

MEMBERSHIPS

Member:

- National Association in Research in Science Teaching (NARST)
- European Science Education Research Association (ESERA)
- International Society of the Learning Sciences (ISLS)
- European Association for Research on Learning and Instruction (EARLI)
- American Educational Research Association (AERA)

Journal Reviewer:

- Journal of Research in Science Teaching
- International Journal of Science Education
- Science Education
- Interacting with Computers
- Cognition & Instruction
- The Journal of the Learning Sciences
- Computers & Education
- Journal of Educational Computing Research
- Electronic Journal of Science Education

Committees:
- NARST Outstanding Paper Award Committee (since 2012)
- ESERA SIG Video-based research of teaching and learning processes (since 2012)

Journal Editorial Board Member:
- Journal of Research in Science Teaching (since 2012)
- Journal of Science Teacher Education (since 2013)

Conference Reviewer:
- European Association for Research on Learning and Instruction Conference (EARLI)
- National Association in Research in Science Teaching (NARST)
- American Educational Research Association (AERA)
- Computer-based Learning in Science Conference (CBLIS)
- International Conference of the Learning Sciences (ICLS)
- Conference of Computer Supported Collaborative Learning (CSCL)
- Computer-Human Interaction Conference (CHI)

Local Conference Organization Committees:
- Co-chair, In-service science teacher education, continued professional development Strand, Bi-annual conference of the European Science Education Research Association (ESERA), Nicosia, Cyprus (2013)
- Scientific Committee, Bi-annual conference of the European Science Education Research Association (ESERA), Nicosia, Cyprus (2013)
- Local Scientific Committee, Bi-annual conference of the European Science Education Research Association (ESERA), Nicosia, Cyprus (2013)
- Scientific Committee, Conference of the World Organization for Early Childhood Education, European University-Cyprus, Nicosia, Cyprus (2011)
- Organization Committee, Teaching and learning in the school subjects: Pedagogical approaches and educational applications, Symposium organized by the Research and Learning Laboratory in Science, Mathematics & Social Studies Education, Department of Education Sciences, European University-Cyprus, January 2010
- Organization Committee, Educational Reform in Cyprus: A contribution to the public debate, Symposium organized by the Research and Learning Laboratory in Science, Mathematics & Social Studies Education, Department of Education Sciences, European University-Cyprus, January 2009
- Local Scientific Committee, International Research Group on Physics Teaching (GIREP) 2008 Conference

HONORS & AWARDS

2011 International Travel Award, AERA International Relations Committee, American Education Research Association, USA

2003 Jacob K. Goldhaber Grant, Research and Graduate School, University of Maryland, Maryland, USA

2002 – 2004	Two-year EDCI Promising Research Fellowship Award, Department of Curriculum and Instruction, University of Maryland, Maryland, USA
1999 – 2003	Three-year Educational Grand, A.G. Leventis Foundation, France
2000 – 2001	Williamy Simonds King Memorial Scholarship, College of Education, University of Maryland, Maryland, USA
1999	Presidential Award for the undergraduate student with the best academic performance at the University of Cyprus, Nicosia, Cyprus
1999	First Prize Award for excellent performance as a student at the Department of Educational Sciences, University of Cyprus, Nicosia, Cyprus
1996 – 1999	Three year fellowship, Electricity Authority of Cyprus, Nicosia, Cyprus
1993	First Prize for excellent performance in all school subjects and ethos, Acropolis Lyceum, Nicosia, Cyprus
1992	Nicos Nicolaides Award for distinction in High School Physics, Nicosia, Cyprus
1991	First Prize for excellent performance in all school subjects and ethos, Acropolis Lyceum, Nicosia, Cyprus

CAMPUS SERVICE:

2014 – 2016	Various faculty promotion committees, European University-Cyprus
2014 – 2016	Chair, Department of Education Sciences, European University-Cyprus
2014 – 2016	Senate Representative, Department of Education Sciences, European University-Cyprus
2014 – 2016	School Council Representative, Department of Education Sciences, European University-Cyprus
2013 – now	Member to EUC Environmental Committee, Department of Education Sciences, European University-Cyprus
2010 – 2015	Ph.D. Departmental Committee, Department of Education Sciences, European University-Cyprus
2008 – 2010	Senate ICT Committee, European University-Cyprus
2008 – 2010	Departmental ICT Committee, Department of Education Sciences, European University-Cyprus
2008 – 2009	Senate Ph.D. Committee, European University-Cyprus
2008 – 2010	Various faculty selection committees, Department of Education Sciences, European University-Cyprus
2002 – 2004	*ex officio* member, Graduate Research and Education Council, Department of Curriculum and Instruction, University of Maryland, College Park, USA
2002 – 2004	*ex officio* member, Graduate Research and Education Leadership Committee, Department of Curriculum and Instruction, University of Maryland, USA
1999 – 2004	Member, Hellenic Graduate Student Association, University of Maryland, USA
1995 – 1998	Member, Club of the Orthodox and Hellenic Tradition, University of Cyprus
1996 – 1997	President, Club of the Orthodox and Hellenic Tradition, University of Cyprus
1997 – 1998	Board member, Club of the Orthodox and Hellenic Tradition, University of Cyprus
1998	Member, organization committee, seminars, Club of the Orthodox and Hellenic Tradition, University of Cyprus

PUBLICATIONS

ARTICLES IN JOURNALS (PEER REVIEWED)

Louca, T. L., Elby, A., Hammer, D. & Kagey, T. (2004). Epistemological resources: Applying a new epistemological framework to science instruction. *Educational Psychologist 39(1)*, 57-68.

Louca, T. L. & Zacharia, C. Z. (2008). The use of computer-based programming environments as computer modeling tools in early science education: the cases of textual and graphical program languages. *International Journal of Science Education*, *30 (3),* 1-37.

Tzialli, D., **Louca**, T. L. & Zacharia, C. Z. (2010). A study of pre-service elementary teachers' views about the Nature of Science. [In Greek, *Μελέτη των απόψεων προπτυχιακών εκπαιδευτικών δημοτικής εκπαίδευσης για τα χαρακτηριστικά και τη φύση της Επιστήμης*]. *The Journal of Teaching in Science Education: Research and Praxis, 34-35*, 58-68 [In Greek, Διδασκαλία των Φυσικών Επιστημών: Έρευνα και Πράξη].

Louca, T. L., Zacharia, Z., Michael, M., & Constantinou, P. C. (2011). Objects, entities, behaviors and interactions: A typology of student-constructed computer-based models of physical phenomena. *Journal of Educational Computing Research, 44(2)*, 173-201.

Louca, T. L., Zacharia, C. Z., & Constantinou, P. C. (2011). In Quest of Productive Modeling-Based Learning Discourse in Elementary School Science. *Journal of Research in Science Teaching*, 48(8), 919-951.

Louca, T. L., Tzialli, D., & Zacharia, Z. (2012). Identification, Interpretation – Evaluation, Response: A framework for analyzing classroom-based teacher discourse in science. *International Journal of Science Education*, 34(12), 1823-1856.

Louca, T.L. & Zacharia, C. Z. (2012). Modeling-based Learning in Science Education: A Review. *Educational Review*, 64(1), 471-492.

Louca, L., Tzialli, D., Skoulia, T. & Constantinou, C. P. (2013). Developing teaching responsiveness to children inquiry in science: A case study of professional development for pre-school teachers. *Journal of Nordic Studies in Science Education,* 9(1), 66-81.

Louca, T.L. & Zacharia, C. Z. (2015). Learning through Modeling in K-6 Science Education: Re-Visiting the Modeling-Based Learning Cycle. *Journal of Science Education and Technology*, 24(2), 192-215.

Philippou, S., Papademetri, C. & **Louca**, L. (2015). 'The exchange of ideas was mutual, I have to say': negotiating researcher and teacher 'roles' in an early years educators' professional development program on inquiry-based mathematics and science learning. *Professional Development in Education, 41(2)*, 382-400. [Special Issue 'The Professional Development of Early Years Educators', Jane Waters and Jane Payler as Guest Editors]

Louca, T.L., Santis, M. & Tzialli, D. (submitted). Following a Lesson Plan Vs. Attending to Student Inquiry: The Struggle of a Kindergarten Student-Teacher During Teaching Science. Manuscript submitted for review in the Elementary School Journal.

Tzialli, D., **Louca**, T. L., Zacharia, Z., Michaelides, M. (submitted). Pre-service teachers' epistemological beliefs and actions. Manuscript submitted for review in the Educational Psychologist.

Lymbouridou, Chr. & **Louca, L**. (in preparation). Capturing the dialectical aspect of classroom discussions about socio-scientific issues: An expanded analytic scheme. Paper submitted for review in the International Journal of Science Education.

UNPUBLISHED MANUSCRIPTS

Louca, T. L. & Constantinou, P. C. (2001). *Using computer-based microworlds for constructing modeling skills in physical science: an example from light*. Unpublished manuscript.

Louca, T. L. & Hammer, D. (2006). *Student Nascent Abilities for Scientific Argumentation: The Case of a 5th-6th-Grade Conversation about a Dropped Pendulum*. Unpublished manuscript.

ARTICLES IN CONFERENCE PROCEEDINGS (PEER REVIEWED)

Papadimitri-Kaxrimani, Chr., & **Louca**, L. (2013). The development of a combined framework for Mathematical and Scientific Literacy for young children: The transition from a skills-based to a process-based curriculum. [In Greek, Η Ανάπτυξη ενός Ενιαίου Πλαισίου Γραμματισμού για τα Μαθηματικά και τις Φυσικές Επιστήμες στο Νηπιαγωγείο: Η Μετάβαση από ένα Πρόγραμμα Δεξιοτήτων Επιστημονικής Μεθόδου, σε ένα Πρόγραμμα Διεργασιών]. Symposium presented at the 7th Greek conference for Science Education in Pre-school Education. In P. Kariotoglou & P. Papadopoulou (eds.), Proceedings Volume of Selected Papers of the 7th Hellenic Conference of Science Education in Pre-school [In Greek, Τόμος επιλεγμένων εργασιών του 7ου Πανελληνίου Συνεδρίου Οι Φυσικές Επιστήμες στο Νηπιαγωγείο]. Athens: Gutenberg.

Louca, L. T., Skoulia, T., & Tzialli, D. (2012). *What to look for and what to do: Novice teachers' abilities for noticing and responding to their students' in-class inquiry.* Paper presented at the International Conference of the Learning Sciences (ICLS).

Louca, L. T., & Tzialli, D. (2012). *Inquiry in the kindergarten science: Helping kindergarten teachers to implement inquiry-based teaching.* Paper presented at the International Conference of the Learning Sciences (ICLS).

Louca, L. T., & Papademetri-Kachrimani, C. (2012). *Asking for too much too early? Promoting mechanistic reasoning in early childhood science and mathematics education*. Paper presented at the International Conference of the Learning Sciences (ICLS).

Louca, L. T., Tzialli, D., & Zacharia Z. C. (2010). *Pre-service elementary teachers' views of the nature of science when talking about the nature of science, enacting science and reflecting on their enactment*. Paper presented at the International Conference of the Learning Sciences (ICLS).

Louca, T. L., Santis, M. & Tzialli, D. (2010). *Implementing a Lesson Plan Vs. Attending to Student Inquiry: The Struggle of a Kindergarten Student-Teacher Between Different Frames During Teaching Science*. Paper presented at the International Conference of the Learning Sciences (ICLS).

Tzialli, D, **Louca**, L. & Zacharia Z. (2010). *A comparative investigations of pre-service students epistemologies in science* [In Greek, Συγκριτική μελέτη των απόψεων προπτυχιακών εκπαιδευτικών δημοτικής εκπαίδευσης για τη φύση της Επιστήμης μέσα από τρείς διαφορετικές πηγές δεδομένων]. Paper presented at the 11th Pancyprian Conference of the Pedagogical Company of Cyprus.

Louca, L., Tzialli, D., & Zacharia, Z. (2008). *Identification – Interpretation/Evaluation – Response: A framework for analyzing classroom-based teacher discourse in science*. Paper presented at the Conference of the Learning Science Society (ICLS), The Netherlands, 24-28 June.

Louca, L., & Zacharia, Z. (2008). *A discourse-based analysis of student inquiry in elementary science*. Paper presented at the Conference of the Learning Science Society (ICLS), The Netherlands, 24-28 June.

Hammer, D. & **Louca**, L. (2008). *Challenging accepted practice of coding*. Paper presented at the Symposium "How to study learning processes? Reflection on methods for fine-grain data analysis" at the Conference of the Learning Science Society (ICLS), The Netherlands, 24-28 June.

Efstathiadou, M., **Louca**, L. & Papadimetri-Kachrimani, C. (2008). *Developing instructional strategies during student-teaching in kindergarten science: The use of guided reflection on videotaped lessons*. [In Greek, Η ανάπτυξη διδακτικών στρατηγικών από υποψήφιες νηπιαγωγούς για τη διδασκαλία του μαθήματος Φυσικών Επιστημών: Ένα πρόγραμμα με τη στήριξη στοχευμένης μελέτης οπτικογραφημένων μαθημάτων επιστήμης στο νηπιαγωγείο]. Paper presented at the 5th Pan-Hellenic Conference of the Natural Sciences in Early Childhood, Ioannina, Greece, 7-9 November.

Louca, L. & Hammer, D. (2007). *Elementary student nascent abilities for scientific argumentation.* In S. Vosniadou, D. Kayser & A. Protopapas (Eds.) The proceedings of EuroCogSci07. The European Cognitive Science Conference 2007 (pp. 47-52). East Sussex, UK: Lawerence Erlbaum Associates.

Louca, L., & Zacharia, Z. (2007). *Nascent abilities for scientific inquiry in elementary science.* In S. Vosniadou, D. Kayser & A. Protopapas (Eds.) The proceedings of EuroCogSci07. The European Cognitive Science Conference 2007 (pp. 53-58). East Sussex, UK: Lawerence Erlbaum Associates.

Louca, L., & Zacharia, Z. (2007). *Modeling with Stagecast Creator™: A video-case study describing the process of developing, evaluating and refining models of accelerated motion in elementary school.* In Constantinou, C. P., Zacharia, Z. C. & Papaevripidou, M. (Eds.) The *Proceedings of the eighth International Conference on Computer Based Learning in Science (pp. 61-74)*, Crete, Greece: University of Crete.

Louca, L. (2005). Creating games or developing programs? Documenting the use of Stagecast Creator™ as a modeling tool in elementary science. In Zacharia, Z. C. & Constantinou, C. P. (Eds), *Integrating New Technologies in Science and Education - Proceedings of the Seventh International Conference on Computer Based Learning in Science* (pp. 556-569). Zilina, SK: University of Zilina.

Louca, L. (2005). The syntax or the story behind it? A usability study of students' work with computer-based programming environments in elementary science. In *the Proceedings of the SIGCHI conference on Human factors in computing systems* (pp. 849-858). NY: ACM Press.

Louca, L., Druin, A., Hammer, D., & Dreher, D. (2003). Students' collaborative use of computer-based programming tools in science: A Descriptive Study. In B. Wasson, St. Ludvigsen, & Ul. Hoppe (Eds.). *Designing for Change in Networked Learning Environments: Proceedings of the International Conference on Computer Support for Collaborative Learning 2003* (CSCL) (pp. 109-118). The Netherlands: Kluwer Academic Publishers.

Louca, L., Hammer, D., & Bell, M. (2002). Developmental versus context-dependant accounts of abilities for scientific inquiry: A case study of 5-6th grade student inquiry from a discussion about a dropped pendulum. In P. Bell, R. Stevens & T. Satwicz (Eds.), *Keeping Learning Complex: The Proceedings of the Fifth International Conference of the Learning Sciences (ICLS)* (pp. 261-267). Mahwah, NJ: Erlbaum.

Louca, L. (1999). The use of Stagecast Creator in constructing modeling skills in physical science: The case of the single lens camera. In Chapman, Gr. M. (Ed.), *Proceedings of the Forth International Conference on Computer-Based Learning in Science (CBLIS)* (pp. section E4). Czech Republic: University of Ostrava.

PRESENTATIONS IN CONFERENCES

Louca, T. L., Skoulia, T., Eliadou, A. & Efstathiadou, M. (2016). Differentiation, Diversity and Gender through contemporary approaches in Science Education. [In Greek, Διαφοροποίηση, Διαφορετικότητα και Φύλο μέσα από τις σύγχρονες προσεγγίσεις της Διδακτικής των Φυσικών Επιστημών]. *Paper presented at 9th PanHellenic Conference for Early Childhood Science Education.*

Eliadou, A., **Louca**, T. L. & Papademetri-Kachrimani, C. (2016). Organized creative activities in Science Education: Guiding children's free play. [In Greek, Δημιουργικές οργανωμένες δραστηριότητες Φυσικών Επιστημών: Καθοδηγώντας το ελεύθερο παιχνίδι παιδιών]. *Paper presented at 9th PanHellenic Conference for Early Childhood Science Education.*

Gavriel, A., Skoulia, T. & **Louca**, T. L. (2016). An investigation of Cypriot elementary students' stereotypes for scientists through their drawings. [In Greek, Διερεύνηση των στερεοτυπικών αντιλήψεων μαθητών Δημοτικού Σχολείου στην Κύπρο για τους επιστήμονες μέσα από τις ζωγραφιές τους]. *Paper submitted at 14th Pancyprian Conference of the Pedagogical Company of Cyprus.*

Skoulia, T. & **Louca**, T. L. (2016). Investigation of pre-service teachers' processes of evaluating and responding to their students' inquiry. [In Greek, Διερεύνηση των Τρόπων Αξιολόγησης Προπτυχιακών Εκπαιδευτικών Δημοτικής Εκπαίδευσης για Ανταπόκριση στις Στρατηγικές Επιστημονικού Συλλογισμού των Μαθητών]. *Paper submitted at 14th Pancyprian Conference of the Pedagogical Company of Cyprus.*

Vasou, Chr. & **Louca**, T. L. (2016). Teaching Robotics in Primary Education [In Greek, Διδάσκοντας Ρομποτική στην Πρωτοβάθμια Εκπαίδευση]. *Paper presented at 3rd Early Childhood Pedagogy Symposium: Contemporary Trends in Curriculum Development and Teaching.*

Louca, T. L., Skoulia, T., & Zacharia C. Z. (2016). Investigating pre-service teachers' pedagogical content knowledge and understanding of inquiry: implications for lesson planning and responses to in-class student inquiry. Paper accepted at EduLearn Conference, Barcelona, Spain.

Louca, T. L., Skoulia, T., & Zacharia C. Z. (2016). How pre-service teachers' PCK and understanding of inquiry influences their lesson planning and enactments in science. Paper accepted at the American Educational Research Association annual conference (AERA), Washington, DC, USA.

Louca, T. L., Skoulia, T., & Zacharia C. Z. (2015). Pre-service elementary teachers' lesson plan design decisions: Prepare and attend to essential features of inquiry. Paper presented at the American Educational Research Association annual conference (AERA), Chicago, USA.

Louca, T. L. & Zacharia C. Z. (2015). Modeling-Based Inquiry in K-6 Science Education: Re-Visiting the Modeling-Based Learning Cycle. Paper presented at the European Science Education Research Association (ESERA) Conference, Helsinki, Finland.

Louca, T. L. & Zacharia C. Z. (2015). Pre-service teachers' abilities for lesson planning and implementation: Attending to student inquiry. Paper presented at the European Science Education Research Association (ESERA) Conference, Helsinki, Finland.

Skoulia, T., **Louca, L.** & Zacharia, Z. (2014). Pedagogical content knowledge and inquiry-based teaching in science: Pre-service teachers' abilities, knowledge and needs. [In Greek, Παιδαγωγική Γνώση Περιεχομένου, Μελλοντικοί Εκπαιδευτικοί και Διερώτηση στις Φυσικές Επιστήμες: Δεξιότητες, Γνώσεις και Ανάγκες]. Paper accepted at the 13th Pancyprian Conference of the Pedagogical Company of Cyprus.

Louca, T. L. & Zacharia C. Z. (2014). Constructing Models and Learning Through the Process: Modeling-based Learning in Science Education. Paper presented at the Constructionism Conference, Vienna.

Zacharia C. Z. & **Louca**, T. L. (2014). Modeling-Based Inquiry in K-6 Science Education: Re-Visiting the Modeling-Based Learning Cycle. Paper presented at the National Association of Research in Science Teaching annual conference (NARST).

Louca, T. L. (2014). Address Students' Inquiry or Follow the Lesson Plan? A Framing-Based Analysis of Elementary-School Science. Paper presented at the National Association of Research in Science Teaching annual conference (NARST).

Louca, T. L. & Papademetri-Kachrimani, C. (2014). Promoting Mechanistic Reasoning in Early Childhood Science Education. Paper presented at the National Association of Research in Science Teaching annual conference (NARST).

Zacharia C. Z. & **Louca**, T. L. (2014). Modeling-Based Inquiry in K-6 Science Education: Re-Visiting the Modeling-Based Learning Cycle. Paper presented at the American Educational Research Association annual conference (AERA).

Louca, T. L. & Papademetri-Kachrimani, C. (2014). Promoting Mechanistic Reasoning in Early Childhood Science Education. Paper presented at the American Educational Research Association annual conference (AERA).

Papademetri-Kachrimani, C. & **Louca**, T. L. (2013). *Learning with and about modeling as a tool for teaching through modeling: Sustainable professional development in science and mathematics pre-school education in Cyprus*. Paper presented at the European Science Education Research Association (ESERA) Conference, Nicosia, Cyprus.

Louca, T. L. & Papademetri-Kachrimani, C. (2013). *Mechanistic reasoning in early childhood science and mathematics education.* Paper presented at the European Science Education Research Association (ESERA) Conference, Nicosia, Cyprus.

Papaloizou, A. & **Louca**, T. L. (2013). *Science education and educational leadership: A case study of a pre-school principal.* Paper presented at the European Science Education Research Association (ESERA) Conference, Nicosia, Cyprus.

Louca, T. L., & Papaloizou, A. (2013). *School leadership and science education: A case study of how a pre-school principal frames and promotes teaching and learning in preschool science education.* Paper presented at the National Association of Research in Science Teaching annual conference (NARST).

Lymbouridou, C. & **Louca**, T. L. (2013). *Capturing the dialectical aspect of a classroom SSI discussion: An expanded analytic scheme.* Paper presented at the National Association of Research in Science Teaching annual conference (NARST).

Kalaidji, M., **Louca**, T. L., Papademetri-Kachrimani, C., Constantinou, P. C. (2012). *Developing models in Science and Mathematics with pre-school children: The cases of electric circuits, the parts of plants, the circle and the negative numbers.* [In Greek, Οικοδομώντας μοντέλα ως αναπαραστάσεις στις Φυσικές Επιστήμες και τα Μαθηματικά με μικρά παιδιά: Το ηλεκτρικό κύκλωμα, τα μέρη του φυτού, ο κύκλος, και οι αρνητικοί αριθμοί]. Paper presented at the 7th Greek conference for Science Education in Pre-school Education.

Louca, T. L., Papademetri-Kachrimani, C. (2012). *Promoting mechanistic reasoning in early childhood science and mathematics education.* [In Greek, Η ανάπτυξη δεξιοτήτων Μηχανιστικού Συλλογισμού μέσα από τις Φυσικές Επιστήμες και τα Μαθηματικά στην Πρωτοσχολική Αγωγή και Εκπαίδευση]. Paper presented at the 7th Greek conference for Science Education in Pre-school Education.

Louca, T. L., Loulli, C., Michaelidou, M. (2012). *Developing conceptual understanding and epistemological awareness in pre-school: The cases of magnets and electricity.* [In Greek, Ανάπτυξη εννοιολογικής κατανόησης και επιστημολογικής επάρκειας στο νηπιαγωγείο: Οι περιπτώσεις του μαγνητισμού και ηλεκτρισμού]. Paper presented at the 7th Greek conference for Science Education in Pre-school Education.

Papademetri-Kachrimani, C., & **Louca**, L. T. (2012). *Mapping Modelling-based Learning in Early Childhood Education.* Paper presented at the Constructionism Conference.

Louca, T. L., Zacharia, C. Z., & Constantinou, P. C. (2012). *Discourse-based analysis of modeling-based learning in elementary school science*. Paper presented at the International Conference on Computer-Based Learning in Science (CBLIS).

Louca, T.L., Constantinou, C. P. & Tzialli, D. (2012). *Supporting teachers to implement inquiry-based teaching in kindergarten science*. Paper presented at the American Educational Research Association annual conference (AERA).

Louca, T.L., Skoulia, T. & Tzialli, D. (2012). *Investigating novice teachers' abilities for noticing and responding to their students' in-class inquiry.* Paper presented at the American Educational Research Association annual conference (AERA).

Tzialli, D., **Louca**, L. T. & Zacharia, Z. C. (2012). *Instructional Strategies for Supporting Elementary Student Inquiry: A Video-Case Study of a Science Teacher.* [In Greek, Διδακτικές στρατηγικές για την υποστήριξη δεξιοτήτων επιστημονικού συλλογισμού μαθητών δημοτικού στις φυσικές επιστήμες: Περιγραφή του προφίλ ενός εκπαιδευτικού μέσα από οπτικογραφημένα στιγμιότυπα διδασκαλιών]. Paper presented at the 12th Pancyprian Conference of the Pedagogical Company of Cyprus, Nicosia, Cyprus, 8-9 June.

Skoulia, T., **Louca**, L. T. & Zacharia, Z. C. (2012). *Alternating frames during teaching: The case of a science lesson*. [In Greek, Εναλλαγή πλαισίων κατά τη διάρκεια της διδασκαλίας: Η περίπτωση ενός μαθήματος των Φυσικών Επιστημών]. Paper presented at the 12th Pancyprian Conference of the Pedagogical Company of Cyprus, Nicosia, Cyprus, 8-9 June.

Zacharia, C., Z., **Louca**, T.L. & Constantinou, C. P. (2012). *Student modeling conversations in elementary school science*. Paper presented at the American Educational Research Association annual conference (AERA).

Zacharia, C., Z. & **Louca**, T.L. (2011). Investigating how Graphical and Textual Computer-based Programming Environments Support Student Inquiry in Science during Modeling. Paper presented at the International Symposium on Models and Modeling Methodologies in Science and Engineering (MMMse 2011) at World Multiconference on Systemics, Cybernetics and Informatics (WMSCI 2011)**.**

Louca, T. L., Santis, M. & Tzialli, D. (2011). *Attending to Student Inquiry Vs. Implementing a Science Lesson Plan: The Case of a Student-Teacher*. Paper presented at the European Science Education Research Association (ESERA) Conference, Lyon, France.

Louca, L. T., Skoulia, T., & Tzialli, D. (2011). *Noticing and responding: Novice teacher abilities to identify and respond to their students' inquiry.* Paper presented at the European Science Education Research Association (ESERA) Conference, Lyon, France.

Tzialli, D., **Louca**, L. T., Zacharia Z. C. & Michaelides, M. P. (2011). *Contextual dependencies of pre-service elementary teachers' epistemologies.* Paper presented at the European Science Education Research Association (ESERA) Conference, Lyon, France.

Constantinou, C. P., **Louca**, L., Tzialli, D., & Skoulia, T. (2011). *Helping teachers to implement inquiry-based teaching in science: The case of 25 kindergarten teachers in Cyprus.* Paper presented at the European Science Education Research Association (ESERA) Conference, Lyon, France.

Zacharia, Z. & **Louca**, L. (2011). *Investigating How Graphical and Textual Computer-Based Programming Environments Support Student Inquiry In Science During Modeling*. Paper presented at the American Educational Research Association annual conference (AERA).

Louca, L. T., Tzialli, D., Michaelides, M. P., & Zacharia Z. C. (2011). *Do different contexts invoke different epistemologies? A critique of research methods used for studying personal epistemologies*. Paper presented at the American Educational Research Association annual conference (AERA).

Louca, T. L., Santis, M. & Tzialli, D. (2011). *Implementing a Lesson Plan Vs. Attending to Student Inquiry: The Struggle of a Kindergarten Student-Teacher During Teaching Science*. Paper presented at the European Conference of the World Organization for Early Childhood Education (OMEP), Lefkosia, Cyprus.

Tzialli, D., **Louca**, L. T. & Zacharia Z. C. (2010). A comparative investigation of pre-service elementary teachers' epistemologies in science education. [In Greek, Συγκριτική μελέτη των απόψεων προπτυχιακών εκπαιδευτικών δημοτικής εκπαίδευσης για τη φύση της Επιστήμης μέσα από τρείς διαφορετικές πηγές δεδομένων]. Paper presented at the 11th Pancyprian Conference of the Pedagogical Company of Cyprus, Nicosia, Cyprus, 4-5 June.

Tzialli, D., **Louca**, L. T., Zacharia Z. C. & Michaelides, M. P. (2010). *Pre-service elementary teachers' views of the nature of science when talking about the nature of science, enacting science and reflecting on their enactment.* Paper presented at the American Educational Research Association annual conference (AERA).

Michaelides, M. P. & **Louca**, L. T. (2010). *Pre Teachers' interpretations of uncertainty in science with and without prompting.* Paper presented at the American Educational Research Association annual conference (AERA).

Louca, T. L. & Tzialli, D. (2010). *Implementing a Lesson Plan Vs. Attending to Student Inquiry: The Struggle of a Kindergarten Student-Teacher Between Different Frames During Teaching Science*. Paper presented at the American Educational Research Association annual conference (AERA).

Michaelides, M. & **Louca**, L. (2009). *Initial ideas of junior teachers about uncertainty in experimental measurements.* Paper presented at the European Science Education Research Association (ESERA) Conference, Istanbul, Turkey.

Louca, L & Zacharia, Z. (2009). *Characterizing Modeling-based Learning in Elementary Science*. Paper presented at the European Science Education Research Association (ESERA) Conference, Istanbul, Turkey.

Louca, L., & Zacharia, Z. (2009). *Developing models of physical phenomena with computer-based tools: Describing collaborative modeling-based inquiry*. Paper presented at the European Association of Research in Learning & Instruction (EARLI) Conference, Amsterdam, The Netherlands.

Louca, L., & Zacharia, Z. (2009). *Identify – Interpret/Evaluate – Respond: An alternative framework for analyzing classroom-based teacher discourse in science*. Paper presented at the European Association of Research in Learning & Instruction (EARLI) Conference, Amsterdam, The Netherlands.

Louca, L. & Zacharia, Z. (2009). *Objects, entities, behaviors and interactions: A typology of student-constructed computer-based models of physical phenomena*. Paper presented at the American Educational Research Association annual conference (AERA), San Diego, CA.

Louca, L. (2008). Developing interpretive video-case studies of authentic classroom-based learning: Combining multiple data collection techniques and data analysis methodologies. Paper presented at the EUROQUAL Conference, Vienna, Austria, 1-3 September.

Louca, L., Zacharia, Z., & Constantinou, C. (2008). *Describing the construction process of models of physical phenomena: A discourse-based analysis of elementary student modeling conversations*. Paper presented at the National Association of Research in Science Teaching annual conference (NARST), Baltimore, MD.

Louca, L. (2008). The use of video-case studies of authentic lessons for investigating student abilities for inquiry in elementary science: Discussion of findings and methodological issues. Paper presented at the Symposium "Cypriot Children's Voices Heard: Methodological and Epistemological Issues in Focus" at the International Childhood and Youth Research Network (ICYRNet) Conference, 28-29 May, Lefkosia, Cyprus.

Louca, L., Zacharia, Z., & Evagorou, A. (2008). *Studying Students' Mechanistic Reasoning, Analogical Reasoning, Argumentation and Scientific Explanations: The Case of Student Inquiry in the Elementary Science Classroom*. Paper presented at the American Educational Research Association annual conference (AERA), New York, NY.

Louca, L., Tzialli, D., & Zacharia, Z. (2008*). Investigating Instructional Strategies for Supporting Elementary Student Inquiry: A Video-Case Study of a Science Teacher*. Paper presented at the American Educational Research Association annual conference (AERA), New York, NY.

Louca, L., Tzialli, D., & Zacharia, Z. (2007*). Describing a teacher's practices of supporting student scientific inquiry from a discourse perspective: a video case study*. Paper presented at the European Science Education Research Association (ESERA) Conference, Malmö Sweden, 21-25 August.

Louca, L. & Hammer, D. (2007). *Student abilities for scientific argumentation: The case of a 5th-6th grade discussion about a dropped pendulum*. Paper presented at the European Science Education Research Association (ESERA) Conference, Malmö Sweden, 21-25 August.

Louca, L., Zacharia, Z., & Constantinou, C. (2007). *School children modeling physical phenomena through programming: a discourse-based analysis of video case studies*. Paper presented at the 12th European Association of Research in Learning & Instruction (EARLI), Budapest, Hungary, 28 August – 1 September 2007.

Louca, L., & Zacharia, Z. (2007*). Nascent student inquiry in the elementary science classroom: The case of modeling combined projectiles & relative motion with Stagecast Creator*. Paper presented at the 12th European Association of Research in Learning & Instruction (EARLI), Budapest, Hungary, 28 August – 1 September 2007.

Michael, M., **Louca**, L. & Constantinou, P., C. (2007). *The development and use of particle-based models from elementary school models: the case of modeling through programming*. [in greek] Paper presented at the 5th Greek Conference of Science Learning, Ioannina, Greece, 15-18 March 2007.

Michael, M., **Louca**, L. & Constantinou, P., C. (2006). *Categorization of computer based model representations, made by students, through the development of evaluation criteria.* Paper presented at the 3rd International Conference on Hands on Science, Braga, Portugal, 4-9 September 2006.

Louca, L., Zacharia, Z., Savva, A. (2006). *Nascent Student Inquiry in the Elementary Science Classroom: The Case of Modeling through Programming*. Paper presented at the American Educational Research Association annual conference (AERA 2006), San Francisco, CA.

Savva, A., Christoforides, M., & **Louca**, L. (2005). *Programming as a means for communication for developing conceptual understanding in mathematics in the elementary school.* [In Greek] Paper presented at the 1st Conference of the Greek Association for Research in Mathematics Education (G.A.R.M.E.).

Louca, L. (2005). *Modeling through programming in early science education: A comparative description of scientific modeling with Microworlds Logo™ and Stagecast Creator™*. Paper presented at the European Science Education Research Association (ESERA) 2005 Conference, Barcelona, Spain.

Louca, L. (2004). *Programming Environments for Young Learners: A Comparison of Their Characteristics and Students' Use.* Paper presented at the Interaction, Design and Children annual conference, Maryland.

Louca, L. & Hammer, D. (2004). *Modeling in science through computer programming: The cases of Microworlds Logo & Stagecast Creator*. Paper presented at the National Association of Research in Science Teaching annual conference (NARST), Vancouver, Canada.

Louca, L., Hammer, D., & Kagey, T (2003). *Specificity of epistemological knowledge: Context dependencies of epistemological resources. An example from a science discussion in a 3rd grade.* Paper presented at the American Educational Research Association annual conference (AERA), Chicago, IL.

Louca, L., Hammer, D., & Bell, M. (2002, April). *Elementary student inquiry in physical science: Answers, explanations, and arguments in a 5-6th grade discussion about a dropped pendulum*. Paper presented at the American Educational Research Association annual conference (AERA), New Orleans, LA.

Louca, L. (2001, March). *Implications of computer-based programming environments as modeling tools for student thinking and learning in Physical Science.* Paper presented at the National Science Teachers Association annual conference (NSTA), St. Louis, MO.

Louca, L. (2001, March). *The impact of computer-based programming environments in student thinking in physical science.* Paper presented at the National Association of Research in Science Teaching annual conference (NARST), in the session: Collaborative Inquiry about the Process of Researching while Teaching. (co-Chairs: Roberts, D. & van Zee, E.), St. Louis, MO.

Louca, L. (2000, June). *The development of curriculum materials for teaching modeling in science: An example from light and its properties*. Presentation at the First Intensive Program of Mathematics Education: "New concepts in learning mathematics," University of Cyprus, Nicosia, Cyprus.

Louca, L. & Constantinou, C. (1999). *Pre-service teachers' understandings of electric circuits: The construction of a mental model through a process of inquiry.* Paper presented at the first Greek Conference of Science Education.

ORGANIZED WORKSHOPS

Louca, T. L. (2016). The New National Science Teaching Curriculafor Early Childhood Education. From an emphasis to knowledge, to an emphasis to skills to an emphasis on inquiry-based thinking. [In Greek, Τα Νέα Αναλυτικά Προγράμματα Φυσικών Επιστημών στην Προσχολική Αγωγή: Από προγράμματα με έμφαση σε γνώσεις, σε εμβάθυνση σε δεξιότητες επιστημονικής μεθόδου, σε ανάπτυξη επιστημονικού συλλογισμού]. *Workshop submitted at 14thPancyprian Conference of the Pedagogical Company of Cyprus.*

Vasou, Chr. & **Louca**, T. L. (2016). Developing technological literacy through robotics using multible platforms and different levels of abstraction: the Engino Robotics Platform PRO [In Greek, Αναπτύσσοντας τεχνολογικό αλφαβητισμό μέσα από ρομποτική με εναλλακτικά περιβάλλοντα και διαφορετικά επίπεδα αφαίρεσης: Το περιβάλλον της Engino]. *Workshop presented at Pedagogical Institute of Cyprus: How to use Digital Games in Teaching and Learning of Mathematics.*

Louca, L., Michael, M. & Zacharia, Z. (2008). Collecting videotaped lessons as data for educational research and developing video-case studies of authentic lessons as professional development materials in science education. Workshop organized at the International Research Group on Physics Teaching (GIREP) Conference, 18-22 August, Lefkosia, Cyprus.

ORGANIZED SYMPOSIA

Louca, L. T. & Lymbouridou, C. (2016). Science Education in Primary schools and teacher's support in "new era" of National Science Education Curriculum in Cyprus. The case of a teacher professional development school based program in Science Education. [In Greek, Οι Φυσικές Επιστήμες, η διδασκαλία τους στο Δημοτικό Σχολείο και η στήριξη των εκπαιδευτικών στη «νέα εποχή» των νέων Αναλυτικών προγραμμάτων στην Κύπρο. Η περίπτωση ενός προγράμματος ενδοσχολικής Επαγγελματικής Ανάπτυξης Εκπαιδευτικών στις Φυσικές Επιστήμες]. *Symposium submitted at the 14th Pancyprian Conference of the Pedagogical Company of Cyprus.*

Louca, T. L. & Lymbouridou, C. (2015). Teacher Professional Development in Science Education in the context of an one-year school-based program: Processes, Challenges and Results. [In Greek, Επαγγελματική Ανάπτυξη Εκπαιδευτικών στις Φυσικές Επιστήμες στο πλαίσιο ενός ενδοσχολικού προγράμματος διάρκειας μίας σχολικής χρονιάς: Διαδικασίες, Πρακτικές, Προκλήσεις, Αποτελέσματα]. Symposium presented at the Teacher Professionalism & Educational Change: Possibilities for Policy & Practice International Conference.

Louca, T. L., Papademetri-Kachrimani, C., Constantinou, P. C. (2012). *From developing abilities for the scientific method, to developing abilities for the scientific processes: Findings from a pilot application of a united curriculum in scientific and mathematic literacy.* [In Greek, Η μετάβαση από ένα πρόγραμμα ανάπτυξης δεξιοτήτων επιστημονικής μεθόδου, σε ένα πρόγραμμα ανάπτυξης διεργασιών επιστημονικού συλλογισμού: Αποτελέσματα πιλοτικής εφαρμογής ενός ενιαίου πλαισίου Επιστημονικού και Μαθηματικού Γραμματισμού σε μικρά παιδιά στην Κύπρο]. Symposium presented at the 7th Greek conference for Science Education in Pre-school Education.

Louca, T. L. & Constantinou, C. P. (2011). Promoting scientific student inquiry in kindergarten science teaching and learning. [In Greek, Ανάπτυξη και στήριξη του επιστημονικού συλλογισμού των μαθητών πρωτοσχολικής Αγωγής στο μάθημα των Φυσικών Επιστημών]. Symposium organized at the European Conference of the World Organization for Early Childhood Education (OMEP), Lefkosia, Cyprus.

Louca, T. L. & Constantinou, C. P. (2011). Helping teachers promote student in-class inquiry: Different cases in four different countries. Symposium organized at the European Science Education Research Association (ESERA) Conference, Lyon, France.

Lymbouridou, Chr., & **Louca**, L. (2009). Studying socio-scientific issues in the context of science education. Case studies of authentic science teaching in Elementary schools in Cyprus [in Greek]. Symposium organized at the 5th Greek Conference of History, Philosophy and Teaching of Science.

BOOK CO-EDITOR

Papademitri, C. & **Louca,** L. (forthcoming). Case studies of inquiry-based teaching in pre-school mathematics and science in Cyprus.

Louca, L. & Constantinou, C. (forthcoming). Inquiry based Science Education in Europe: Cases of professional Development.

Louca, L. Papadimitri-Kaxrimani, Chr., & Constantinou, C. (Eds). (2006). *Teaching science & using new technologies in pre-k education [in Greek]: The Proceedings of the Third Greek Conference of Pre-K Science Education.*