



RALPH REGULA SCHOOL OF COMPUTATIONAL SCIENCE CONSORTIAL AGREEMENT

REGULA SCHOOL CURRICULUM

Institutions participating in the Ralph Regula School of Computational Science will offer a multi-institutional, interdisciplinary undergraduate minor in computational science with courses starting in the fall of 2007. The effective date of this agreement will be August 15, 2007. It will be reviewed following the first term of implementation and annually to determine whether there are needed changes in the agreement. Standardized certificate programs to create workforce knowledge and skills valued by industry also are under development. Graduate courses will be added by 2009. The undergraduate minor curriculum offering for 2007-2008 is as follows:

Course Title and Number	Institution/Instructor	Quarter or Semester*	Credit Hours
CS 399 Selected Topics in Computational Science Programming and Algorithms	Wright State Ronald Taylor, Computer Science	Fall quarter 2007	4
Special Topics Introduction to Modeling and Simulation Part 1	Sinclair Art Ross Physics	Fall quarter 2007	2
Special Topics Introduction to Modeling and Simulation Part 2	Sinclair Art Ross Physics	Winter quarter 2008	2
Computational physics	Art Ross Physics	Spring quarter 2006	4
CSAC 245 Introduction to Modeling and Simulation	Capital University John Philips and Pat Shields	Fall semester 2007	3
Bioinformatics	Kent State Helen Piontkivska	Fall semester 2007	3
Parallel and Distributed Computing	Univ. Cincinnati Fred Annexstein	Fall quarter 2007	3
Computational Physics 15PHYS410	Univ. Cincinnati Richard Gass	Spring 2008	3
Computational Thinking in Context CSE294 (Programming and Algorithms)	OSU, CSE P. Sadayyan	Spring, 2008 Classroom only	4
Chem 644 Computational Chemistry	Chris Hadad OSU	Spring, 2008 Classroom only	3
Optimization	Wittenberg	Still pending	5
CPS3465 Parallel Programming	Robert Marcus Central State	Spring Semester 2008	3
Differential Equations Using Computation, MATH299	Columbus State	Summer quarter 2008	6

*All courses offered at distance unless otherwise indicated.

The full curriculum description can be found at:

<http://www.rrscs.org/docs/competencyfinal.pdf>

Regula School Initial Participating Institutions

Capital University
Central State University
Columbus State Community College
Kent State University
Ohio State University
Sinclair Community College
University of Cincinnati
Wittenberg University
Wright State University

Terms

- **Home Institution:** The institution where the student is admitted as a student. Home students “visit” other institutions through Regula School courses
- **Host Institution:** The institution where the Faculty of Record (primary course instructor) is employed. Host institutions “teach” the Regula course.
- **Participating Institutions:** Colleges and universities that elected to participate in sharing courses through the Regula School.
- **Faculty Coordinators:** At least one faculty member at each participating institution responsible for assisting students to register for courses, shepherding courses for approval by deans, department heads and curriculum committees, arranging course technical support, as needed, and communicating with their Home Registrar and the Regula School.
- **Registrar Contacts:** The staff in the Office of the Registrar of participating institutions who are responsible for sending and/or receiving Regula -related information to the Faculty Coordinators, the Host or Home Registrars Contacts, and the Regula School
- **Technical Contacts:** The staff at participating institutions responsible for providing various related technical support (video conferencing, student support services, etc.)
- **Visiting Students:** Students from institutions other than the Host Institution, who participate in Regula School courses.

REGULA SCHOOL START UP SUPPORT

To ensure that students have continual access to Regula School courses, the School will assist institutions with start-up costs. Each institution will provide the agreed upon course with the faculty-approved competencies for \$3000 one time for an offering of the course. The courses and contracted institutions are listed above.

REGISTRATION PROCESSES

Regula School course information and schedule is made available through the Regula School website and the websites and print catalogs of all participating institutions (<http://www.rrscs.org>).

Once a course has been approved through its local curriculum review process and/or designated for a Regula course, that information will be posted at the host institution on their website, on-line catalog, and course management system (if available) and shared with the Regula School. If faculty approval is required by a student interested in registering for the Regula course, the Faculty Coordinator at each institution will secure approval for the student.

Supplementary Regula School course information will be available for student viewing on the Regula School web site (<http://www.rrscs.org/minorcourses/index.shtml>)

The Regula School will maintain an informational web site for students to gain knowledge about the course and curriculum, internships, and job possibilities. The Regula School will link to each participating institution's policies related to class calendars and dates for adds, drops, withdrawals, grade translations. This web site will stress that students register for courses through their Home Institution and not through this web site. Faculty Coordinators will provide Regula course information to the Regula School for publication on the RRSCS web site.

Students register and pay tuition for Regula course(s) at their Home Institution. To provide the information required by the registrars to track cross-registering students, students will be asked to fill out a common form for each course enrollment as a visiting student. The procedure used will be:

1. When a student fills out the special common form (Application for Host Institution Class Enrollment attached to this agreement) registrars at each participating home institution will add a specially tagged course number or a placeholder class on their schedule to enroll them in the class. A long-term goal of the consortium will be to cross-list all Regula School courses in the regular catalogs to facilitate registration and grade transfer procedures. The RRSCS website will have information about the course calendar for each such course and students will need to comply with the calendar at the host institution. The home institution will inform the student that, in cases where the home and host institutions differ in academic calendar systems (i.e., semester vs. quarter), the term associated with the home institution's placeholder course may not correspond to the actual term associated with the course taught at the host institution.
2. Students will register for the course at their home institution using regular registration procedures.
3. In addition, students will fill out the Application for Host Institution Class Enrollment, sign it, and turn it in at their home institution registrar's office. When faculty approval is required for registration, Faculty Coordinators will obtain approval for registration. Based on the local enrollment systems, each Regula School course will reserve one half of the enrollments in each class for the visiting students up to 30 days prior to the start of the class and after that time, class enrollment should become open to all students. To assist this process, registrars and Faculty Coordinators will meet online once per term.

4. Once the Application for Host Institution Class Enrollment has been received, the home registrars will fax the completed form to the host registrar who will, in turn, add the student to their local database and register the student for the hosted course, and notify the home institution of completion of the registration process. This process will be facilitated electronically when those capabilities are in place through the Ohio Board of Regents.
5. The host institution will then notify the student that they are registered and transmit the procedures for them to obtain access to course materials and other host institution systems. Students will be given the same privileges as local students. **As required, network IDs and Passwords are mailed to Regula students by the appropriate administrative office at the host university.**
6. Host/Teaching and Home Registrar Contacts will distribute course rosters. The Host/Teaching Registrar Contact will send the complete course roster (including visiting students and regular students) to the Faculty/Instructor of Record per usual systems. The Home Registrar Contact will send a course roster of only the visiting students from that institution to their local Faculty Coordinator. All participating Registrars will send an email to the Regula School that summarizes the institution's final student enrollment numbers (undergraduate and graduate) in the shared course. This email to the Regula School should NOT include specific student information, only numbers of undergraduate and graduate students enrolled and their home institutions
7. **Drops/adds/withdrawals will be managed and communicated by Host/Teaching and Home Registrar Contacts.** Students will agree to abide by the calendar of the teaching institution in term of dates for withdrawal, penalties, and final grades. This information will be posted on the RRSCS website and the teaching institution site. Home Institution procedures and policies are followed regarding any administrative fees that are charged for add/drop activity, late enrollment processing, etc. Withdrawals should be made through both the home and host institutions. As a secondary measure, the home institution also will communicate the student's withdrawal to the host institution's registrar. Mechanisms to track drops will need to put into place to allow this information exchange.

GRADES AND TRANSCRIPTS

Grading Policies

Grade conversions will happen at the Home Institution. The Faculty of Record will submit all student grades (visiting and regular) to the Host/Teaching Registrar Contact using the grading scale of the Host/Teaching Institution.

Upon completion of the academic term, the host institution will notify the home institution of the final grade in the course and number of credit hours completed. The home institution will be responsible for all grade conversions and course grading scale adjustments. As these are completed, the home institution will provide a list of students and the courses they completed.

Grade changes will follow Home Institution policies and procedures

Local policies and procedures of the student's Home Institution regarding late, missing, incorrect grades, and their impact on graduation will apply. In cases where graduations at Home Institutions are earlier than the Host/Teaching Institution, students will work with Faculty Coordinators to resolve any issues that might impact graduation.

STATE SHARE OF INSTRUCTION

State Share of Instruction will remain with the home institution.

Public colleges and universities offering Regula courses will report student enrollments through regular HEI reporting mechanisms. State Share of Instruction (SSI) will flow to the home institution by agreement. Independent non-for-profit institutions will not receive state support in the form of State Share of Instruction (SSI).

FUNDING MODELS

There are several aspects to the funding model under this collaborative agreement. To assist in the implementation of the program, the Ralph Regula School of Computational Science will offer a one-time subsidy of \$3000 per course for each of the courses taught in the 2007-2008 academic year.

Each institution will collect tuition from the students taking courses taken through the Regula School. There will be no differences in course funding with native students. The home institution will collect the tuition and fees and state subsidy for those students.

Revenue will be shared with the Regula School and the institutions hosting visiting students. Tuition will be collected at the home institution for those students using their current tuition and fee structure. Payment will be made to the Regula School at a rate of \$250 per quarter credit hour for each student hosted by other institutions. Public institutions will continue to collect the State Share of Instruction for those students.

The Regula School will use 25% of the collected fees for additional course development, marketing, and administration. The balance of the fees collected for hosted students will be passed to the hosting institution.

CURRICULUM APPROVAL AND INSTITUTIONAL INVOLVEMENT

All institutions participating in this consortium are expected to play an active role in on-going curriculum development, review, and delivery.

- A) Each participating institution will offer at least one Regula School class at the institution in each academic year.
- B) Each institution will appoint one faculty representative to the statewide curriculum review committee. That committee will meet quarterly (if needed) but at least twice per year to review and approve new courses for existing consortium members or proposals for courses by new member institutions. The committee also will review the competencies required in the minor program and revise them as necessary in response to changes in the science and engineering fields.

- C) Member institutions can propose changes to the curriculum or to the consortium agreement. The changes will be considered by the statewide committee and a recommendation made to the consortium for their approval.

CURRICULUM EVALUATION

Curriculum and course reviews are the hallmarks of quality processes in higher education. Due to the nature of the content, courses in the Ralph Regula School of Computational Science have a shorter ‘shelf life’ than some other academic disciplines. A continuous improvement process is necessary for the strongest curriculum and the best trained students. The process shall be as follows:

A) The curriculum for the minor in computational science will be reviewed at the end of the first full year of all courses taught. A review team of faculty, students, and industry representatives will evaluate the relevance of the total curriculum and make recommendations for additions, deletions or revisions at the course level.

B) At the course level, courses and modules funded by RRSCS will be evaluated by a faculty and student peer review team on an annual basis after the first offering and then reviewed every other year. The Ohio Learning Network’s rubrics for online courses will be used as part of the evaluation process.

C) Courses taught by RRSCS faculty, but not funded by the School, will be examined as part of the overall curriculum review, and will be evaluated every other year by a faculty and student peer review team. This team shall contain some members from the review teams created in paragraph B above.

STUDENT SERVICES EVALUATION

An annual assessment will be made of student services related to the Ralph Regula School. The School will coordinate this effort with participating campuses to field regular surveys of students and campus administrative staff to ensure that students advising, registration, and other procedures are working satisfactorily from the student's viewpoint.

SIGNATORIES

The undersigned academic officers agree to the terms of this consortial agreement for the Ralph Regula School of Computational Science.