**RFP 22-67411**

TECHNICAL PROPOSAL

ATTACHMENT F

The State requests Respondents to submit technical proposals (25 page maximum) addressing the questions below. Appendices including relevant staff and sample user guides or support documents do not impact the technical proposal maximum. Respondent proposals must address questions to the fullest extent possible. Questions noted as a specific IDOE requirement must both confirm and describe how the requirement is met by the deployment and implementation of the proposed solution.

Please supply all requested information in the yellow-shaded areas and indicate any attachments that have been included. Document all attachments and which section and question they pertain to.

2.4 General Information

2.4.1 Please describe the background of your organization relevant to the task in the Scope of Work and include the organization’s knowledge, skills and experience with similar tasks. Please include examples of past work related to this assignment.

Indiana University plays a major role in the education eco-system in the State of Indiana – placing the largest number of teachers in Hoosier classrooms, prepare principals for leadership roles, building capacity of school counselors who offer social and emotional learning opportunities, and provide professional development to thousands of Hoosier educators so that students across Indiana are getting the most engaging and innovative curriculum possible. The totality of IU’s engagement is and has historically been pervasive, robust, and in alignment with IU’s mission of bridging the gap between K-12 classrooms and higher education, particularly to address the economic, social, and geographical inequities in education and prepare low-income, first generation, and minority students for college and career success. To further expand IU’s engagement with K-12, the Office of School Partnerships was established to coordinate, connect, support, and leverage the strengths of each of the IU campuses to address the State’s most pressing educational needs through partnerships.

Relevant to this RFP, Indiana University is currently working with 180 Hoosier teachers and administrators, from more than 50 Indiana high schools, to develop online K12 courses, teacher professional development around remote instruction, virtual tutoring and mentoring, programming to address equity gaps, and building the teacher talent pipeline. For example, the Office of School Partnerships received a Governor’s Emergency Education Relief (GEER) grant to create online high school courses in partnership with 120 teachers which expands access to high quality virtual learning opportunities and provided profession development to teachers to build their capacity to teach engaging online courses that align with curriculum standards.

Indiana University faculty and staff have the expertise to deliver best-practice based supports, and partnerships necessary for validation and deployment of new skills by educators in the field. The University has a strong record of developing and delivering effective online education, has research faculty with expertise in virtual learning, has partnerships with regional education consortia and 300 school districts across the state, and educates a large percentage of Hoosier PK-12 teachers. Indiana University‘s Office of Online Education is a leader in the field and the centers for teaching and learning support more than 10,000 online IU courses last academic year. Last, Indiana University online High School (IUHS), and researchers in the Learning Sciences department in the School of Education at IU Bloomington, have particular expertise in developing & evaluating virtual learning at the PK-12 level, and designing and offering professional development for virtual educators.

2.4.2 Please provide a high-level project plan for all subsequent years.

The key elements to long-range planning for the project are developing high-quality courses, and then effectively building interest in enrollment in the courses and monitoring evolving student success and student demand. Continual monitoring and reporting will demonstrate how successfully the courses have been developed, deployed, and met with student enrollment demand. Close collaboration with the Indiana Department of Education and partnering schools will be required to ensure that course delivery matches state objectives, as well as provide students’ instruction sufficient to meet graduation requirements and individual student pathways goals. One critical aspect of embedding these aspects into the multi-year phases is to integrate the objectives of the RFP into the practices that guide the ways the schools work together as a network. Special attention will be given in year one to the development of these practices.

Year one will focus on: initial framework development, school recruitment, teacher professional development, course catalog identification, course development, establishing a network of participating schools, and establishing objectives and practices for success within the school network.

Years two and three will focus on: continued course development, continued teacher professional development, course pilot, data collection and reporting, data integration between DOE data processes and project data sets, and execution of school network practices that promote the utilization of the courses and result in data-based adaptations and additions.

Years four and five will focus on: continued course delivery and expansion of pilot sites, continued data collection and course refinement, continued surveys to students and parents assessing satisfaction with the course and ascertaining demand for additional courses, continued refinement to data integration, and exploration of student outcome data in partnership with the DOE and partner schools. Additionally, a second state-scan will occur (halfway through year four) to determine how Indiana’s program compares to that of other states, and to determine if models have emerged that can inform determination of program continuity and support. 18 months prior to the end of the grant term, a summary document will be drafted outlining the annual milestones, comprehensive milestones, program strengths and proposed funding prospectus for use in determining future funding and delivery models. Project leads (IU & DOE) will identify and vet potential continued structures.

2.5 Leveraging an existing organization to maintain the delivery of the course access network

2.5.1 Please provide the names of existing relationships with organizations that will help implement the model described in the Scope of Work, how your organization will leverage these existing relationships and describe how existing organizations will maintain delivery of course access network.

**External to IU**:

**Indiana Department of Education**:

IDOE staff and Indiana University have been working collaboratively in 2020 and 2021 to identify, develop and deploy a range of virtual courses. Continuation of this current work, via this RFP, will be natural and efficient through all phases of the project. The two entities have worked together to identify priority courses for initial development and can build off this analysis and work to identify the most appropriate courses for inclusion in the scope of this development. It is anticipated that the existing format of weekly meetings to ensure project deliverables and timing meet objectives will continue; these meetings allow for tweaks and problem solving in real-time, and foster quality control. Additionally, the IDOE staff are familiar with course framework utilized in the current course design collaboration and can provide quick and effective feedback leading to any necessary adaptations.

**East Central Education Service Center**:

Part 1, June 2021: Provide any necessary documentation of current model to IU as needed in literature review.

Part 2, June 2021: Provide experience in working with districts in current model to support the construction of framework as requested by IU. Survey districts as needed.

Part 3A July 2021-January 2022: Provide existing network and structure of current pilot program to support the IU initiatives. Provide current MOUs in place to support the project. Support the creation of the rubric for school selection.

Part 3B: With the work of the ECESC-employed leader, communicate with schools regularly regarding coursework that can be offered in the network. Identify and support needs of the schools (regarding course descriptions, pathways, etc.) to best create buy-in for the grant project. Assist in a regional version of the online course request component.

Part 4: Provide pilot schools based on the locale within the geographic parameters of the service center. IU will facilitate other parts of the state, yet allow the ECESC to maintain it’s current regional approach. The ECESC can serve as either a site for PD incorporated in the grant and/or support recruitment and advertisement of teachers and schools for PD located in other parts of the state. Assist in finding PD that may be of interest to the grant by using the ECESC network.

Part 5: Following the structure led by IU, ECESC will provide necessary record keeping by request.

Part 6: Assist in growth efforts and continually seek new partnerships and additional funding. ECESC could serve as the site of mentor teachers (if more than 1 person is needed, budget will be adjusted).

**Mitchell Community Schools, Superintendent**:

Part 2, June 2021: Provide experience in working with districts in current model to support the construction of framework as requested by IU.

Part 3A July 2021-January 2022: Provide existing network and structure of current COSMOS program to support the IU initiatives. Provide current MOUs in place to support the project. Support the creation of the rubric for school selection.

Part 3B: Identify and support needs of the schools (regarding course descriptions, pathways, etc.) to best create buy-in for the grant project.

Part 4: Assist in assessing implementation success

**Internal to IU**:

IU High School -Rebecca Itow, Principle at IU High School is currently working on the Course Design Academy with teachers across the State of Indiana to develop course content and an instructional design strategy for 50 online courses. Through this project, we will refine the framework and expand upon the number of courses offered.

Digital Education Hub – Jeremy Price and his team are developing resources and learning opportunities to cultivate equity and inclusion within online learning environments. The K-12 partners will have access to the network of teachers and resources available for professional development opportunities for the duration of the project and beyond. <https://digitaleducationhub.org/>

IUPUI Cyber Lab – Ali Jafari and Alice Zhao, will combine with CourseNetworking, LLC (the CN) to support online pedagogical practices and course design. We will work with the IDOE, technology consultants in K-12, and everyday users of Learning Management Systems to determine how to best leverage what the CN has to offer and how it can be integrated into other LMSs (e.g., Canvas, Google Classroom) to ensure the greatest level of access and adaptability. The CN was co-founded by Indiana University in 2011 and is able to provide a variety of technical services such as system integration, usage data analytics custom queries, platform refinement, etc. and software licenses and supports.

Advanced College Project (dual credit) – Troy Byler works in partnership with high schools across the state to help deliver dual credit courses and more recently, ensure students at their schools are able to achieve the Indiana College Core. The ability to expand access to dual credit courses through an online or partnership model holds great potential for students, regardless of where they live or go to school.

Great Lakes Equity Center – Kathleen Thorius-King will work with staff from the Digital Education Hub to offer professional development workshops to ensure courses are developed with attention to equity (e.g., special needs, racism, identities, dis/abilities).

Office of School Partnerships – Kristin Norris will help coordinate and connect resources across the IU campuses and leverage existing partnerships with the K-12 sector to help with the pilot phase and strategies for long-term implementation.

2.5.2 Please describe in detail the research strategy including review of existing programs in other states, literature review and best practices, creation of a model of school network based on literature review and/or state scan, and how your organization will submit a detailed proposed plan from start of work, through pilot and ending with 90 courses.

To develop and execute the plan for this work, we will review existing online learning programs that have formed and sustained school networks for the purpose of supporting student learning within and across a given state. Specifically, we will examine the structures, practices, and learning routines promoted by various models in other states, and how those structures, practices, and learning routines impact student engagement and teacher workload. The review will focus on online programs and schools that (a) serve public school students within that state; (b) attend to state laws, guidelines, and academic standards when awarding credits and/or grade reports; and (c) have established formal ongoing relationships with a given state’s department of education that inform programmatic decision-making. Our examination of programs and schools will include those serving populations with similar economic, social, environmental needs as those in Indiana, as well as those with high-profiles including (but not limited to) Michigan Virtual, Illinois Virtual, the Wisconsin eSchool Network, and University of Nebraska Online High School.

We will also review the relevant literature examining online pedagogies, virtual learning and instruction, and instructional design in various digital learning environments. Existing relationships with experts in responsive online pedagogy, virtual assessment frameworks, and theory-driven instructional design will inform our review to ensure that we are considering the most current understandings of best and appropriate practices in online learning environments given the shift in student needs that were borne out of and illuminated by the COVID-19 Pandemic e.g., (Itow, 2020a, 2020b).

Drawing from our experience, we will conduct a systematic review of the Course Design Academy, which engaged approximately 180 educators across the State of Indiana to build more than 50 online middle and high school courses. The insights gained from this intensive nine-week Academy will directly inform the iterative refinement of both the course framework template and the ways in which educators engage with the template (and one another) to build and teach virtual courses. To illustrate, some insights gained will highlight how (a) frontloading the pedagogical underpinnings of the course framework template and (b) the inseparability of the Indiana Academic Standards and curricular design decisions shape course design and learners’ ability to achieve in virtual learning settings.

These review and examination efforts will result in the iterative refinement of the course framework template, as well as the structures, practices, and learning routines that form the infrastructure of our school network and its efforts to build, maintain, and update virtual courses. Our team’s expertise in facilitating work within Research Practice Partnerships (Coburn & Penuel, 2016) will bring researchers and practitioners together to examine the best practices that arise from the reviews described above, and identify those most appropriate for addressing the specific needs and goals of Hoosier students, families, and educators.

2.6 Defining the frameworks, courses needed and Integrating local corporation and school expertise into a sustainable model

2.6.1 Please describe the method and approach your organization will provide in creating a course framework template that aligns to [Indiana Standards](https://www.doe.in.gov/standards), Universal Design for Learning and [National Standards for Quality Online Learning](https://www.nsqol.org/the-standards/). In addition, provide the platform (e.g. Word, PDF, Excel, etc.) on which the final course framework template will be submitted.

This work will draw on insights gained from more than a decade of research on online course design (e.g., Hickey et al., 2020), a six-year design research effort conducted within a university-run online high school to understand how teachers learn in digital spaces (Itow, 2018), research on theory-driven instructional design and analytics (Quick & Itow, in press), the development of a Responsive Online Pedagogical Model (Itow, 2020a), and our most recent work in the Course Design Academy. The latter study’s focus on building virtual learning environments that facilitate meaningful interactions between teachers and students resulted in a Responsive Online Pedagogical Framework and curricular structures for supporting productive disciplinary engagement (Engle, 2012) centered around student-created artifacts. More recent instructional design and analytics research within the university-run online high school found that prior to the Pandemic students were vulnerable in one kind of way, but after the Pandemic the vulnerability – and consequently their needs – were different.

Work in the summer, fall, and winter of 2020-2021 introduced the Responsive Online Pedagogical model and the new findings regarding student needs to a small group of Hoosier teachers as they built three new online courses for the IDOE. In addition to creating courses, this specialized course-design effort catalyzed refinement of an initial course structure, which was then used by instructional designers with expertise in using the Quality Matters and newer NSQOL to build a course template framework. This template was then presented to a different small group of teachers in the Course Design Academy Pilot. The Pilot teachers used the template and offered feedback that shaped its refinement; these adjustments clearly showcase the ways in which course design is linked to the Indiana Academic Standards. From creating opportunities for students to rank their comfort with skills outlined in the Standards to explicitly stating which standards-based “I can …” Statements are the focus of each lesson activity, the Pilot informed adjustments to the course template framework. Working with instructional designers and pedagogical experts, we refined the template to work in both a traditional LMS format (Canvas) and in Google Docs so that educators can use the new courses no matter what platform their school uses to facilitate learning. The current design leverages what instructional designers know about quality online learning design (including the QM and NSQOL frameworks and accessibility standards) with what teachers know about how to support their students.

At the conclusion of the Pilot, we synthesized the information gathered and the findings from the early design research mentioned above to create a structure for working with educators, schools, and researchers in a research practice partnership (Coburn & Penuel, 2016). Titled the Course Design Academy, Hoosier administrators, librarians, general educators, special educators, and researchers comprised the participant list. Academy participants reconciled differing and often competing goals to develop online courses. Experts in UDL and special educators informed course structure, curricular design choices, and the creation of resources that offer strategies for differentiation, accommodation, and modification of these online courses. Ultimately, the Academy brought together educators from across the State of Indiana (who are most knowledgeable about their specific student populations’ needs) with experts in online pedagogies, virtual assessment, UDL and accessibility in digital spaces, and instructional designers of online learning environments. The Academy utilized educators’ relevant experience regarding student needs and lessons learned in the tumultuous (but informative) emergency remote teaching generated by the COVID-19 Pandemic (Itow, 2020b) to implement the current best practices for online learning in useful and usable ways. As shared in 2.5.2, what we learned in the Course Design Academy will bolster our understandings of and designs for virtual course creation and implementation. Specifically, our new insights around teachers’ needs in the design and delivery of online curricula will shape the infrastructure of our school network to ensure that educators possess the skills and confidence to integrate the Indiana Academic Standards, Responsive Online Pedagogy, and best practices in online learning into their design and teaching practices.

The course template framework will be presented in an Excel spreadsheet to showcase the connections between several elements of the framework. The work outlined above revealed that the course template itself is most likely to be useful and usable when presented in a word-processing platform (e.g., Microsoft Word). Unlike a .PDF, which is may not be accessible by screen readers, a word-processing platform such as Microsoft Word offers accessible flexibility and familiarity as teacher-designers create courses and teacher-users implement those designs. Additionally, by presenting the final course template in a word-processing format, design work can be conducted collaboratively in Google Docs and downloaded into a Microsoft Word format. Moreover, when paired with a course fully designed within a Learning Management System, the Word document can serve as a kind of guide for teaching the course.

For accountability, we will form a small review committee consisting of Rebecca Itow; IDOE representatives; staff from Indiana University’s Center for Learning Analytics; and experts in equity, inclusion, and UDL. This team will meet regularly to systematically review, adjust, and affirm that the framework supports the curricular objectives.

To ensure that the course frameworks and subsequent curriculum development engages all learners, and those from marginalized populations, the project will include thoughtful analysis of the frameworks at the adoption stage. Drawing on the Universal Design for Learning (Meyer et al., 2013; Rose & Meyer, 2002), Culturally Relevant Pedagogy (Ladson-Billings, 1995), and Technology Use for Equity (Pollock, 2016), we have assembled a team of experts who have been involved in the course design framework, the Digital Education Hub, and the Great Lakes Equity Center, and faculty experts from IU. The team will facilitate a professional development experience for teachers who will then be able to contribute to a sustainable framework for inclusion and equity for online learning. We will be building upon an approach developed during the COVID-19 pandemic to support teachers in developing inclusive and equitable practices while engaging their students in rigorous learning experiences grounded in the standards (Price et al., 2021).

2.6.2 Please describe in detail how your organization will create an initial network of partnering schools that will provide well-rounded courses.

Detailed description should include but not limited to the following:

* Developing and cultivating relationships with partnering schools;
* Developing a Memorandum of Understanding (MOU) with partnering schools; and
* Providing IDOE data to identify school selection and contact information for partnering schools.

IU has a history of developing partnerships with schools and formed the Office of School Partnerships in 2020 to increase our capacity. IU maintains an inventory of campus-community partnerships in Collaboratory, which is a cloud-based relational databased that captures information about who is doing what, where, with whom, and for what purpose. Each of the IU campuses uses Collaboratory to track the variety of ways (research, outreach programs, initiatives, courses that are connected to the community) IU faculty, staff and students are working in and with the community to address issues of concern.

While not every project documented in Collaboratory involves an MOU, we develop MOUs with schools for certain programs (e.g., ACP within high schools). We will leverage the same resources IU uses to create these MOUs to develop the MOUs with the K-12 schools as part of this project.

The East Central Education Service Center staff will provide significant expertise and guidance in developing structural supports for school networks. Staff will be directly involved in the development MOU’s, establishment of best practices, and monitoring and supporting network engagement. Additionally, we will invite other organizations with a shared mission and relevant experiences to collaborate on the development of the rubric to select partner schools, and the identification of practices that support school networks. Potential collaborators include Regional Opportunity Initiatives (ROI), the multi-corporation collaborative COSMOS (Mitchell, Shoals and Orleans schools), and other service centers across the state.

2.6.3 Please describe in detail how your organization will create a rubric and confirm your organization’s selection process to determine and select partnering schools that meet the following criteria:

Detailed description should include partnering schools providing:

* Capacity and strategy to serve rural communities and traditionally underserved populations.
* Capacity and strategy to meet accessibility needs for students with disabilities, IEPs, 504s, and ILPs.
* A description explaining how course(s) planning to be offered serves IDOE’s determined course needs.
* A description explaining how course(s) planning to be offered supports access to well-rounded educational opportunities.
* A description explaining how course(s) planning to be offered increases college and career readiness
* Modes of delivery for courses.
* Data and reporting to IDOE with documentation of communication and

monitoring of partnering schools; and

* Priority to rural schools or schools with educationally disadvantaged students.
* Please allow IDOE to have final approval of partnering schools.

The project will survey statewide partners and gather example MOU’s, requests for participation, and consortia agreements that involve schools and/or corporations joining networks and other structured multi-organizational projects where each member has articulated responsibilities (i.e. service centers, ROI grant applications, Center for Rural Engagement grants, etc.). A review of these documents will guide both the rubric for participation as well as MOU development.

The rubric for participation will require schools to provide: a) demographic and descriptive data with an emphasis on representation of key student and family factors (underserved populations, access to technology, students with IEP’, 504’s, etc); b) a narrative about how their participation aligns with the mission of the RFP; a description of how their involvement expands opportunities for student engagement in expanded curricular options; c) an explanation of how their participation engages students in career and college readiness steps; and d) affirmations that participant schools are committed to delivering courses via multiple modalities, are committed to expanding access for rural and underserved populations, are committed to adhering to the curriculum frameworks and course curriculum, are committed to implementing the provided strategies for addressing UDL, equity and inclusion, and teaching all learners, and are committed to engaging fully with the other schools in the network in establishing and adhering to agreed upon common or necessary practices.

2.7 Defining the credentials and expertise required of course facilitators

2.7.1 Describe how your organization will develop courses with partnering schools that will allow progression toward 90 courses upon completion of this grant using the created course framework.

* A description how your organization will develop courses with course curriculum that meet the following criteria but not limited to:
  + Align with [Indiana Academic Standards](https://www.doe.in.gov/standards) that correspond to courses found in [IDOE’s High](https://www.doe.in.gov/sites/default/files/standards/2021-2022-course-titles-and-descriptions-ctd-catalogue-jmw.pdf) [School Course Titles and Descriptions](https://www.doe.in.gov/sites/default/files/standards/2021-2022-course-titles-and-descriptions-ctd-catalogue-jmw.pdf) and/or [Elementary/Middle School Subjects and](https://www.doe.in.gov/sites/default/files/standards/2020-2021-elementary-and-middle-level-subject-descriptions-3162020.pdf) [Descriptions](https://www.doe.in.gov/sites/default/files/standards/2020-2021-elementary-and-middle-level-subject-descriptions-3162020.pdf)
  + Align to AP, IB, and CI courses and dual credit courses from the [Indiana Core Transfer](https://transferin.net/earned-credits/core-transfer-library/) [Library](https://transferin.net/earned-credits/core-transfer-library/) when possible.
  + Fulfill Core 40 graduation requirements, including [Indiana Graduation Pathways](https://www.doe.in.gov/graduation-pathways)
  + Contain standard accessibility features, including best practices for Social-Emotional Learning (SEL) and English Language Development (ELD)
  + Align with the [National Standards for Quality Online Courses](https://www.nsqol.org/the-standards/)
  + Ability to be taught in multiple models including with synchronous and asynchronous components
  + Include modes of learning with the use of email, social media, learning management
  + systems (LMS), discussion boards, phone applications, and video conferencing

The approach to course development will be framed by three areas of emphasis and phases: curricular fidelity to state standards, robust teacher preparation prior to course development, and a structured process of instructional design support and review to ensure courses effectively deliver content and pedagogy that meets the stated objectives (multi-modal, engages all learners, effective design principles, effective utilization of LMS and virtual learning tools, etc.).

Phase one will include:

1)Identification of first 30 courses for development. A review of the approximately 60 existing virtual secondary courses and elementary content developed through IU’s Course Design Academy will be conducted to determine which courses and subject areas (elementary) already have deployable (i.e. pilot) curriculum. Working with the DOE, the project team will review the Indiana Graduation Pathways and requirements for Core40 diplomas and identify 50 high school courses that need to be developed, prioritizing: a) those that are often the most difficult for schools to offer regularly, and b) provide expanded access to dual credit\*, AP and IB in alignment with the Core Transfer Library and Indiana College Core.

\*A special note about dual credit: Indiana University’s commits to providing the curriculum, teacher training and support, and delivery of 10 dual credit courses listed on the CTL, including world language, through the ACP dual credit program.

2)For the courses identified, curriculum maps (inclusive of DOE frameworks, standards, and “I can” statements”) will be developed by small teams of curriculum experts. These will be aligned to the general course framework, and reviewed and approved by the DOE. This step is necessary based on our experience working with teachers in the Course Design Academy. Though teachers have great subject matter expertise, the task of structuring a complete curriculum aligned to all Indiana Standards requires curricular expertise that most teachers have not honed.

3)Building capacity for teachers to develop culturally and pedagogically relevant courses. These activities will be front-loaded, and mostly occur prior to the beginning of course development. Our experience indicates that teachers are best able to develop courses if they have sufficient professional development and scaffolding prior to and during course development. Our approach emphasizes preparation prior to development, with structured touch points during development. There will be four approaches for this: a) Model Materials Design, b) Pilot Teacher Capacity Building, c) Scale and Sustainability Advancement, and d) course development mentoring. The first approach, Model Materials Design, will result in the development of two sets of materials and resources. The first is model lessons and activities based on the catalog of online courses being built across grade levels and subject areas that can be integrated into the overall project structure. The second approach involves working directly with the teachers involved in the project to build their capacity with respect to equity and inclusion in online learning, and sound virtual pedagogy. Teachers will be led through ongoing experiences to deepen their understandings and practices of inclusive and equitable learning and teaching in terms of their dispositions, decisions, relationships, policies, and technologies through a communities of practice approach (Au, 2002; Kirschner & Lai, 2007; Wenger, 1999). The third approach will involve preparing for this approach to equity and inclusion in online courses to be integrated into the course materials. This work will include approaches that are grounded in developing expert validity (Clayton, 1997) and social validity (Snodgrass et al., 2021). An advisory board of three experts in equity, inclusion, and online learning and teaching will be convened two times per year over the development years to explore problems and solutions of design and practice for expert validity. As issues of equity and inclusion are rooted in the school-community interface, a diverse panel of 10 community stakeholders (Bolstad, 2012) will be engaged four times per year over two years to discuss the ongoing efforts of the project and of the equity and inclusion initiatives for social validity. Additionally, in order to ensure a successful course deployment in the LMS platform and its unique features, teachers will receive support for the implementation of the technology platform. Instructional designers will be providing pedagogical and technical training to course designers and teachers, and giving instructional design support in the course development and deployment process to enhance learning engagement and to address the identified learning goals and objectives.

The fourth approach includes providing a course development mentor to each teacher. These mentors are faculty and course development experts at Indiana University and will monitor, review and support teachers during the development phase.

2.7.2 Describe the marketing, vetting and selection process for including teachers to participate in course development that meets but is not limited to the following criteria:

* Educator must be licensed in the content area of the course;
* Educator must have taught in the course content area within the past five years; and
* Verification that participating educators have taught within the past five years and are licensed in the content area.

The project leverages experiences with the GEER grant process and will be adapted as necessary. Overall, we value collaboration and the co-creation of knowledge. The long-term success of this project is dependent upon a high level of teacher involvement and it is our goal to identify highly qualified teachers and make sure expectations are clear.

The call for participation will include a list of courses to be developed, required qualifications (e.g., licensed in the content area and have taught the course within the last 5 years), and the commitments that are required of both the teachers and their supervisor. Teachers will be expected to commit to a robust professional development experience as part of the on-boarding process that is attentive to both course development as well as the instructional design process with particular attention given to the needs of diverse learners. A strong commitment and desire to support equitable learning practices and supporting all learners, regardless of modality, will be required.

We will prioritize teachers who have had prior experience delivering relevant or related coursework in a variety of formats, a prioritization that we could not make prior to the pandemic. Teachers will be given examples of course frameworks and the expectations and deliverables will be clearly outlined prior to affirming their commitments. Teachers will be part of a cohort model including their participation in professional development, but each teacher who participates will be responsible for developing one course each.

While the IU Schools of Education and each of the IU campuses will leverage their networks to encourage teacher participation, the call for applicants will be made widely available and substantial stipends will be given to teachers who choose to make the time commitment to the process.

2.7.3 Describe method, approach and delivery system used for the course catalog of pilot courses that will be offered to pilot schools.

It is critical to effective and efficient development and delivery of courses to utilize a single course-development/deployment environment. However, since selection of development and pilot schools will prioritize school-based capacities to support teacher professional development, alignment between key priority courses and high-needs student populations, and support of data objectives around students, courses, and geographical context, is implausible to also prioritize selection of schools based on the current use of a common LMS. Rather, the project will require the designation of a common virtual instructional environment that each participating school and teacher will adopt for the purposes of: a) standardizing course development; b) housing initial and iterative versions of the courses; c) deployment within other LMS’s via LTI and related technologies; d) central data collection and reporting, across all participants; e) integration, where possible, with DOE and CHE data systems for purposes of reporting, analysis, and evaluation; and f) standardization of the experience for students (which enables stronger support for students with I.E.P’s, and other students in need of supplemental or adaptive instructional practices).

The implementation plan includes adopting an appropriate course development/deployment environment, with the selection to be affirmed by representatives of the DOE, partnering schools, and Indiana University.

Indiana University staff have expertise with two LMS tools: Canvas and CourseNetworking. Utilizing one of these two options increases the value and capacity Indiana University brings to the project because we can tap into existing knowledge, resources, and strategies. For the purposes of this proposal, and to illustrate the kinds of attributes we believe are important to integrate into the courses in the catalog, we propose that the CourseNetworking LMS technology be adopted as the “one enterprise suite”, offering a comprehensive and turnkey solution to needs outlined in this RFP. A brief explanation of the rationale for proposing CourseNetworking follows. Ultimately the official selection of CourseNetworking will require necessary dialogue and demonstration between the CN team and the project leadership team (IU, DOE, school participants) to ensure deliverability and compatibility with project objectives; the team may ultimately select a different tool.

The Case for CourseNetworking(CN):

The CourseNetworking(CN) software environment addresses the software application needs stated in the iDOE WRCAF RFP in a number of different ways. First, the CN LMS offers all the needed LMS functionalities (like all common features offered by Moodle, Schoology, Canvas, Blackboard, D2L, etc.) and additional advanced features not available in a typical LMS (see competitive advantages below) but are important to fulfill the requirements of the WRCAF RFP. Second, the CN LMS provides a lifelong dashboard for all students and instructors to access iDOE learning objects and courses in addition to academic networking and communication tools. (See below for elaboration.)

CN LMS Advantages

CN offers two Learning Management System course structures. Both are SaaS on Amazon AWS, which provide a complete toolbox for the creation and delivery of online courses and distribution of learning objects and modules. In addition, the following innovative features and functionalities are available within the CN LMS:

1. Universal Cross-Platform LMS. While a CN LMS course can be used as a standalone learning platform for the schools that do not have a residence LMS, the CN LTI tool can be integrated with other LMS (such as Canvas, Moodle, Schoology, D2L) to bridge a school’s LMS course to the universal CN LMS course. For instance, school A is using Canvas and school B is using Moodle. School A and B will install the CN LTI tool inside their Canvas and Moodle courses. Students will go to their Canvas or Moodle accounts to click on the CN LTI link and be dynamically directed to a Universal CN course (for example, Spanish1). With this, only one course designed in the CN LMS format is needed to serve all schools even though they are committed to different learning management systems. This uniqueness also increases project scalability and continuity in the long term.

2. Social Learning and Social Posting Tool. One of the unique features of CN LMS is the Posting tool available in every CN course. The CN posting and polling related features can be used by instructional designers and course instructors to cultivate a social learning and engaging environment for the students.

3.Build-in Micro Certification and Digital Badges. The CN LMS has its own comprehensive badging system deeply integrated with CN LMS. Badges can be created by iDOE, schools and/or instructors and be placed in the CN badge library for instructional designers and instructors to easily add them to their courses. Logics can be developed and applied to badges to be issued and awarded to those students who completed certain predefined requirements. Badges received by each student will automatically be placed, with certification metadata, in each student’s lifelong CN ePortfolio and can be transferred by students to other social and learning platforms.

4.Build-in Gamification. CN is equipped with a gamification engine called Anar Seeds (Pomegranate Seeds). Anar seeds are given to students for participating in certain activities within each course. The course instructor decides when and how many seeds to be awarded for each activity. The total number of Anar Seeds received by a student is visually displayed in a Seeds Progress Bar and compared to class average. Course instructors can set an Anar seed goal for each course and may give bonus points or a percentage of the course grade to those students who reach the goal. The Anar Seeds engine motivates students through learning gamification.

5.Artificial Intelligence (AI). In April 2021 CN released an Intelligent Agent tool within its CN environment called Rumi. Rumi uses AI and Machine Learning to intelligently recommend resources, information, hits, etc. to each CN user on individual basis. CN is the very first and the only LMS offering deep integration with AI services within courses and other learning environments. For more information about Rumi please view https://www.thecn.com/rumi.

6.Teacher Training Capabilities: CN is not only engaging for student learning but also effective in delivering training to teachers. The Pathway LMS course structure is designed for self-paced online learning. It has a mobile-friendly, easy-to-follow UX interface. Teachers can easily view the learning progress. Upon completing a training course, if desired, an e-certificate is automatically issued and added to the teacher’s CN ePortfolio, which can be downloaded, shared, and tracked by school and state admins. With the teacher training capabilities, CN enables teachers to experience the platform where they will design and deliver their courses.

7. Lifelong Learning Account and Dashboard. In CN every member has a lifelong CN account. The same lifelong CN account can be used while students switch schools or moved to professional careers. Each CN account comes with a unique URL (personal link) that can be used for personal branding, a social ePortfolio, or to sign into their CN account. Upon signing into their CN account, students will see their lifelong personal learning dashboard that dynamically shows courses and other recourses that they have access to. Additionally, through this dashboard students are dynamically connected to their school’s social Networks or can join global learning communities based on their academic interests. The CN admins can manage student access permissions to different resources and networks. An example would be that younger elementary students may need extensive limited Internet visibility and social networking exposure.

2.7.4 Describe the creation of a minimum of high school courses across a variety of subject areas that will allow progression toward the 90 courses upon completion.

Course development will occur in three phases. It is important that courses are designed in waves. This approach allows the project team to provide targeted teacher support, effectively monitor and improve quality and fidelity to standards, and make implement improved strategies each round. Identification of first 30 courses for development. A review of the approximately 60 existing virtual secondary courses and elementary content developed through IU’s Course Design Academy will be conducted to determine which courses and subject areas (elementary) already have deployable (i.e. pilot) curriculum. Working with the DOE, the project team will review the Indiana Graduation Pathways and requirements for Core40 diplomas and identify 50 high school courses that need to be developed, prioritizing: a) those that are often the most difficult for schools to offer regularly, and b) provide expanded access to dual credit\*, AP and IB in alignment with the Core Transfer Library and Indiana College Core.

\*A special note about dual credit: Indiana University’s commits to providing the curriculum, teacher training and support, and delivery of 10 dual credit courses listed on the CTL, including world language, through the ACP dual credit program.

Middle and elementary courses and subjects will be identified in via surveys of elementary and middle school leaders, and input by IDOE about most desired courses and subjects. Development will rely on the professional development and scaffolding outlined above, and also be built on pedagogical frameworks for elementary subjects designed through Dr. Anne Leftwich’s work supported by GEER funds. This approach provides teachers with models and adaptable frames for building virtual content. In all cases, the IDOE will have final say over which courses and subjects are developed.

2.7.5 Describe method, approach and delivery system your organization will use to develop an outline course request form for students and parents to recommend additional courses for the course catalog.

The project team will gather feedback from teachers, parents, and students throughout the process. Sondhi Solutions, a certified MBE in the State of Indiana, will provide contracted services including the development and deployment of parent and student interest surveys, aggregated survey reporting and interest analysis, and a web-form utilized for student requests for course participation. Sondhi will work directly with project leads (IU, schools and DOE) to develop the set of survey questions, create and host the webform surveys, and distribute surveys and subsequent course request forms based on student and parent contact data obtained by participating schools and approved by the DOE. Reporting of course interest will be presented in the form of a written report in accordance to the program deliverables timeline. Any course recommendations will go through a review committee process and a market analysis will be conducted to determine the viability of the success of the course.

2.8 Pilot Course Implementation

2.8.1 Describe the method and approach in implementing partnering school districts, piloting course framework and providing professional development and collaboration with partnering teachers and schools to ensure course alignment with developed digital learning course frameworks.

Our experience indicates that teachers are best able to deliver courses if they have sufficient professional development and scaffolding prior to and during course delivery. In addition to the initial professional development prior to course development, each teacher will have an instructional mentor during the pilot phase. These mentors are faculty and instructional experts at Indiana University and will monitor and support teachers during the pilot phase.

The course offerings and student enrollment across the school network will be determined ahead of the pilot phase. MOU’s will be drafted through input from partnering schools that outline instructional responsibilities, communication plans, parent and student engagement efforts, problem resolution, etc. The MOU development will be guided by Katie Lash, Director of the East Central Education Service Center, with input from Brent Coomer, Superintendent of Mitchell schools.

2.9 Documentation and Ongoing Development

2.9.1 Provide the work plan for data, reporting and documentation. The plan should include but not limited to a description of how the organization will do the following:

* Provide data review of course completion.
  + Data should include but not be limited to the following:
    - Course name or catalogue of course;
    - Number of students enrolled in-district with demographics;
    - Number of students enrolled out of district with demographics;
    - Coursework progression towards completion; and
    - Grading or assessment data.
* Provide annual evaluation of impact of courses.
* Provide parent, student and school satisfaction pre- and post-surveys annually.
* Provide longitudinal report of parent, students, and school satisfaction surveys.
* Provide longitudinal data identifying number of schools, courses and teachers participating in school network.

Utilization of a single LMS will allow for course and enrollment data to be effectively collected, aggregated, and analyzed in multiple ways. All required data points will be identified by the IDOE and partner schools ahead of deployment of courses and enrollment such that if any adaptations to LMS or reporting practice is necessary, these can be identified and resolved ahead of time. The project team will report course data annually, or at an interval preferred by the IDOE, in the form of a written report and CSV files, in accordance to the program deliverables timeline. Reported and data will include all required demographic data, course enrollments and completions, within and without district enrollment details, pathway progress, dual credit and other aspects deemed valuable by the IDOE and partner schools. These data will be presented in report form, with annual and longitudinal sections and analyses.

The project team will gather feedback from teachers, parents, and students throughout the process. Sondhi Solutions, a certified MBE in the State of Indiana, will provide contracted services including the development and deployment of parent and student interest surveys, aggregated survey reporting and interest analysis, and a web-form utilized for student requests for course participation. Sondhi will work directly with project leads (IU, schools and DOE) to develop the set of survey questions, create and host the webform surveys, and distribute surveys and subsequent course request forms based on student and parent contact data obtained by participating schools and approved by the DOE. Reporting of course interest will be presented in the form of a written report in accordance to the program deliverables timeline.

2.9.2 Describe in detail program development by reviewing and revising course curriculum and course expansion.

To focus this work and guide decision making, team members will engage in regular systematic reviews of the course curriculum. Reviews of curriculum will be conducted at both the course and framework level by the review team and other partners discussed in 2.6.1. Examining the courses at close and high-levels, as well as at regular intervals, will allow for the team to make smaller adjustments to the courses and to the general work as it progresses. Such reviews will reveal which course structures, practices, and learning routines are working well, and the ways in which they should be adjusted to meet the specific needs of Hoosier students and educators. Systematic review of the individual course structures and the systemic function of the program will result in the iterative revision of the course curriculum, and drive decision-making around how to adjust work in progress, which courses to design next, and how subsequent design should be conducted so that all work remains aligned.

2.9.3 Describe the growth for sequent years by determining areas of growth and improvement including expansion of new courses based on evaluations, data and satisfaction surveys.

As this work progresses, the iterative refinement of course and system-wide structures, practices, and learning routines will be guided by input from a variety of stakeholders. In the regular systematic reviews described above, information regarding the user-experiences will be gathered through parent and student surveys, general- and special- educators' reflections, and administrators’ observations. Working with experts in learning analytics, user data reflecting both student and teacher interactions within the courses will be collected and analyzed to inform decision-making around course refinement and implementation (see Quick & Itow, in press). Course evaluations that target student and teacher audiences will be collected and evaluated to inform continued refinement and revision of courses. The design research approach used to collect, analyze, and use these data facilitates simultaneous review of local and systemic structures over time. As such, this work will be able to support the growth and expansion of courses as students’ needs, educators’ practices, and technology evolve over time.

2.9.4 Describe how your organization will increase the number of participating schools offering course(s).

The proposal includes a partnership with Sondhi Solutions who will assist with data collection and program evaluation. Those who participate in the pilot program will be involved in not only the data collection process, but also how the data is used to inform how the work will expand moving forward. The goal is to understand the benefits from the pilot partners’ perspective and showcase how a model such as this holds potential to increase access to their student population.

The school network support team, which includes directors of education service centers and key superintendents from current networks will be included to help identify strategies to expand participation. Leveraging IU’s marketing resources and networks across the state, sharing who benefits, how, and models for engagement we will expand the program to the greatest areas of need.

2.9.5 Describe the organization’s plan to identify/select two mentoring teachers from demonstration sites to provide course format guidance, ongoing training and serve as mentors to additional teachers.

Teachers face the needs of understanding best online PD practices and need support and guidance on how to transfer their pedagogical skills to online learning environments in order to address Indiana standards. Research shows that teachers described having a lack of preparation, training, and support to design quality instruction with technology (Trust & Whalen, 2020). This proved to create both additional stressors and barriers to effective remote teaching (Trust & Whalen). Recent studies of the Spring 2020 remote learning experience also showed that virtual coaching, or providing expert guidance was useful in providing refinement, analysis, and continual development and improvement of pedagogical skills for remote teaching (Keefe, 2020). Teachers also mentioned the importance of being able to collaborate and divide and conquer with their colleagues as being important to their ability to implement online learning during this time. Indiana University has developed a teacher mentor approach in support of virtual course development and pedagogy, and is piloting this model summer 2021. This model will be evaluated and refined, and used to structure the mentoring needed by pilot teachers in the proposed project.

Mentor teachers will be recruited from the cadre of pilot teachers via application, and recommendations by their principal AND the teacher’s faculty mentor during the course development phase. The application will ask teachers and references to affirm the teachers commitments and abilities around: course development and instruction that aligns with the mission of the RFP; ability to effectively engage students in virtual instruction; commitment to delivering courses via multiple modalities; commitment to expanding access for rural and underserved populations; and success in adhering to the curriculum frameworks and course curriculum, strategies for addressing UDL, equity and inclusion, teaching all learners, and adhering to agreed upon common or necessary practices.

2.9.6 Describe how your organization will develop and create a minimum of 90 course(s) at the end of the contract (50 high school, 25 middle school and 15 elementary), and increase the number of available courses in the network by establishing development of future funding streams to continue program expansion beyond the life of the federal grant.

As mentioned above, the course development will occur in three phases, which allows the project team to provide targeted teacher support, effectively monitor and improve quality and fidelity to standards, and make implement improved strategies each round. The final product will be the completion of 90 courses as approved by the IDOE. Future funding streams should be researched and identified based on project success.

Future funding will be a constant consideration during project evaluation and assessment. Years four and five will focus on expansion of pilot sites, continued data collection, continued surveys to students and parents assessing satisfaction with the course and ascertaining demand for additional courses, continued refinement to data integration, and exploration of student outcome data in partnership with the DOE and partner schools. Additionally, a second state-scan will occur (halfway through year four) to determine how Indiana’s program compares to that of other states, and to determine if models have emerged that can inform determination of program continuity, future funding and support. 18 months prior to the end of the grant term, a summary document will be drafted outlining proposed funding prospectus for use in determining future funding and delivery models. Project leads (IU & DOE) will identify and vet potential continued structures, and present these options to those identified by the IDOE as relevant decision makers. Grant and funding research will be conducted concurrently in years four and five by contracted grant support professionals, and also project staff at Indiana University.

2.10 Staff Qualifications

2.10.1 Provide a list of all full-time staff members, include the names and professional backgrounds of each. In addition, identify which management staff would directly handle this account and their length of tenure with the agency and the roles they perform. IDOE would like at least one staff member from the main vendor to have demonstrated expertise and experience in teaching and developing online or virtual coursework. Please include staff members names and resumes highlighting relevant experience to work.

Mike Beam – Assistant Vice President for School Partnerships

Beam has been at IU for 19 years, most recently focusing on managing IU's dual-credit program, a growing area both at IU and in the state. Beam works across campuses and with schools across the state to strengthen partnerships and build more collaboration related to K-12 education. Mike Beam (though his staff) will coordinate meetings and logistics for the project.

Rebecca Itow-

Dr. Rebecca Itow has been at IU for 10 years and is Principal of Indiana University High School. Dr. Itow earned her PhD in Learning Sciences from Indiana University, where she studied teacher professional development, assessment, and the reciprocal relationship between practice and research in education. Itow brings 15 years of teaching in public high schools to this project. Rebecca’s role will be to work closely with DOE staff to ensure that adaptation of the CDA curriculum framework meets quality control objectives outlined in the RFP, and further articulated by the DOE. Additionally, Rebecca will oversee and guide the integration of instructional design experts (focused on UDL, SEL, supporting all learners, and LMS use) into course development. Additionally, Rebecca will coordinate and implement the professional development necessary to support each participating teacher. Rebecca’s background provides her with the unique experience necessary to support this project: Principal of Indiana University Online High School, Virtual Course Design Academy (CDA) Director, principal designer of CDA course framework, principal designer of IUHS virtual pedagogy framework, and research experience in teacher professional develop in online learning contexts.

Jeremy Price-

Dr. Price's has been at IUPUI for 5 years. His research and teaching focus on supporting the development of purposeful practices based in critical reflection with technology to support good and just teaching. This has led him to investigate teaching practices grounded in reflection and social justice through multiple lenses, such as social network theory, communities of practice, and mindful and contemplative practices.

Dr. Price explores the ways that technology can be used to give marginalized students a voice and a platform for exploring the intersection of place, environment and community. Most recently, Price and his colleagues developed the Digital Education Hub, co-developed resources that cultivate equity and inclusion with technology, focusing especially on learners representing structurally marginalized identities and communities.

Dr. Anne Leftwich-

Dr. Ottenbreit-Leftwich has been at IU for 8 years and is the Barbara B. Jacobs Chair in Education and Technology and Associate Professor of Instructional Systems Technology within the School of Education at IUB. Her expertise is in the design of K-12 curriculum resources with a particular focus on technology and computer science. She is also a co-founder of CSforIN, which focuses on increase computer science access opportunities for all K-12 Indiana students.

Troy Byler-

Troy has been at IU in several capacities for 17 years. He started his career at IU teaching world languages (French, Italian, German). In January 2020, he moved from a faculty position to administration as the Director of the Advance College Project. As the Director, he maintains quality control of all ACP activities, advances the program and promotes standards for concurrent enrollment at state and national levels, and provides direction for new partnership development and program expansion.

Alice Zhao-

Alice has been at IU for 11 years and is currently pursing her doctorate in Instructional Systems Technology. For the past 6 years, Alice has been working at the IUPUI CyberLab to develop software that meets users needs and design and deliver professional development trainings. She brings expertise using LMSs in online learning settings and specifically, working with teachers to integrate theCN.

Dr. Ali Jafari-

Dr. Jafari has been at IU for 35 years and brings over 20 years of research and design experience. His expertise in the development of Learning Management Systems and ePortfolios combined with social networking brings a unique and innovative perspective to this project.