



Department of  
**Family and Consumer Sciences**  
**Grades 7-12**

K-12  
Program Review

**2019**

Board of Education

**2018-2019**

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## **Introduction**

It is the goal of the Bridgewater-Raritan Regional School District to develop and implement a thorough, data-based process for analyzing curriculum, instruction, assessment, student performance, professional development, and resources in all curricular areas ensuring that professional practice is always current, relevant, and aligned to the most updated standards. Each curricular area will be reviewed on a, at most, five-year timeline. The results of each process will be presented publicly.

### Acknowledgements

The following individuals were directly involved in gathering information/data and contributed to the completion of the Family and Consumer Sciences (FCS) Department's program review, which is presented in this document.

- Leonard Herman, Supervisor of Family and Consumer Sciences
- Christopher Black, Media Communications Teacher
- Colleen DiMonte, Special Education Co Teacher
- Jan Carr Jones, Special Education Resource Room Teacher
- Dianne Kolavitch, Technology Teacher
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- Julia Kubian, Family and Consumer Sciences Teacher
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- Leigh Woznick, Media Specialist
- Laura Zamrock, Assistant Principal

The FCS Department teachers that provided feedback to the guiding questions are listed below:

- Linda Ahrens, Family and Consumer Sciences Teacher (retired)
- Margaret Tkach, Technology Teacher (retired)

### Goals and Purpose

In this document, it is the goal of the FCS Department to present the following:

- A description of the physical program
- Current course offerings including enrollment data
- A review of the curriculum, instruction, assessment, resources, staffing, and professional development
- Student performance data
- Recommendations leading into the curriculum revision process

## Table of Contents

<b>Section Title</b>	<b>Page Number</b>
Philosophy Statement	5
Description of Current Program	5
Data Collection, Teacher Feedback, and Reviews	7
Summary of Survey Data	7
Review of Curriculum	8
Review of Instruction	11
Review of Assessment	12
Review of Resources	12
Review of Professional Development	14
Comparison Programs	15
Overall Student Performance	16
Recommendations - Curriculum	16
Recommendations – Assessment	19
Recommendations – Resources and Technology	20
Recommendations – Staffing	21
Recommendations – Professional Development	21
Proposed Program Plan Timeline	23
Appendices	24

## **Philosophy Statement**

It is the intent of the FCS Department to prepare our students with the necessary skills to be successful and productive members of a technological society. Our courses place an emphasis on problem solving, critical thinking, and providing an outlet for individualized creative expression. Courses strongly emphasize the development of career awareness, critical thinking, collaboration, and communication skills. The curriculum includes the integration of technology, time management, problem-solving, and cooperative learning. In addition, students develop interpersonal skills by working in groups with classmates from a variety of socioeconomic and culturally diverse backgrounds.

We further believe that:

- Originality and artistic expression are critical elements for the success of students within the department as well as beyond their high school experience.
- Students explore their creative interests through the exploration of culture, design, creation, and presentation of original work, aesthetics, and analysis.
- The foundation of artistic understanding provides students with a unique perspective, which allows them to view their world differently.

The FCS Department offers the student a wide range of courses that emphasize practical problem solving which will enhance their lives and further prepare them for the 21<sup>st</sup> Century technologically based society in which they live.

## **Description of Current Program**

The FCS Department at Bridgewater-Raritan Regional School District (BRRSD) consists of eight full-time certified teachers. Currently there are two FCS Department teachers working at the Bridgewater-Raritan Middle School (BRMS) and six FCS teachers working at the Bridgewater-Raritan Regional High School (BRRHS). The teachers in the FCS Department have diverse educational experiences as well as a wide range of real-world experience. The teachers have direct field experience in many disciplines including finance, early childhood education, parenting, fashion design, textiles, interior design, nutrition, and food preparation on a personal as well as commercial scale. There are 15 different FCS Department courses offered between the BRMS and BRRHS.

### **Grades 7-8**

The FCS Program starts at the middle school in grade 7 with a Textiles and Design cycle. The Textiles and Design cycle allows students the opportunity to design, plan, and construct a textile product using specific criteria and constraints. The course allows students to develop 21<sup>st</sup> Century problem-solving skills through hands-on activities. The learning occurs by engaging students in complex, strategic problem-solving activities that require higher-order thinking. The grade 8 course focuses on introducing students to nutrition and basic kitchen safety in a hands-on environment. Foods and Nutrition cycle focuses on the understanding and application of principles of basic nutrition as it applies to a student's daily life.

The students attend their assigned cycle class for 40-minute periods every day for seven weeks then rotate to the next cycle class in the progression. All students rotate through the middle school cycle program during their grade 7 and 8 grade years and the courses are in the areas of FCS, Industrial Technology, Technology/Computers, Art, and Music.

### **Grades 9-12**

The FCS Program at the high school addresses four major areas consisting of early childhood education, foods and nutrition, fashion design, and life skills. All courses are designed to be hands-on laboratory experiences that challenge the students to utilize problem solving and life skills. The program in the high school is comprised of electives and students have a choice of 12 different courses as well as Special Education FCS courses. The courses consist of either semester or yearlong classes, which meet daily for 40- or 41-minutes depending on the assigned period. The students select courses based on their interest, which is determined during the scheduling process.

With a variety of course offerings, the FCS department is able to meet diverse needs of our students. FCS entry-level courses allow students to gain a working knowledge and understanding of vital life skills while the advance courses provide a solid foundation for students interested in pursuing careers in various fields. All courses are designed to allow students to integrate the newly acquired skill and knowledge immediately into his/her everyday life.

All courses in the FCS Department are academic level offerings. The department designs all of its courses to be part of the comprehensive education to create a well-rounded student, preparing him or her for continuing post-secondary education, entering the workforce, military service, and/or admissions to an institution of higher education. All FCS students are grouped heterogeneously and designed to meet the New Jersey Department of Education 21<sup>st</sup> Century Life and Careers and Career-Technical Education requirements for Graduation.

For a complete list of course offerings as well as the curriculum approval dates, please see [Appendix A](#).

### **Three-year Course Enrollment Trends**

The Three-Year Course Enrollment Trend table shows course enrollment over the past three years for the FCS Department. By analyzing this data, it allows the district leadership team to make informed decisions about trends in students' needs and interest. This information was used to develop the student, staff, and parent surveys as well as recommend classes to be eliminated from the program of study.

For a complete chart of Three-year Course Enrollment Trends, please see [Appendix B](#).

### **Three-year Grading Trends**

The Three-year Grading Trend table shows average grades in courses over the past three years for the FCS Department. By analyzing this data, it allows the district leadership team to make

informed decisions about trends in students' needs and interest. This information was coupled with the results of the student, staff, and parent surveys allow us to draw some conclusions about the students' ability to achieve in the course as well as show their overall performance. It was found that 85.3% of the students agreed or strongly agreed, "The assigned tests, projects, and activities in the FCS classes are challenging to students, but are fair." In addition, 100% of teachers strongly agreed that "The assigned tests, projects, and activities are designed to reinforce the learning that occurs in the FCS classes." As a result, conclusions can be drawn about the mastery of learning objectives taught in FCS classes.

For a complete chart of Three-year Grading Trends, please see [Appendix C](#).

### **Three-year Enrollment Trends by Gender**

The Three-year Enrollment Trends by Gender table shows enrollment broken down by gender in courses over the past three years for the FCS Department. By analyzing this data, it will allow the district leadership team to make informed decisions about trends based on gender and course selection. This information coupled with the results of the student, staff, and parent surveys allows us to draw some conclusions about the students' interest based on gender. In addition, it allows for the development of curriculum that both interests male and female students as well as prepares all students with the necessary 21<sup>st</sup> Century skills.

For a complete chart of Three-year Enrollment by Gender, please see [Appendix D](#).

## **Data Collection, Teacher Feedback and Reviews**

### **Summary of Survey Data**

The following information was gathered from surveys and analyzed during department and program evaluation meetings. All of the teachers in the FCS Department completed the full list of guiding questions and submitted their responses via a Google form. A full list of these guiding questions is located in [Appendix E](#) of this document.

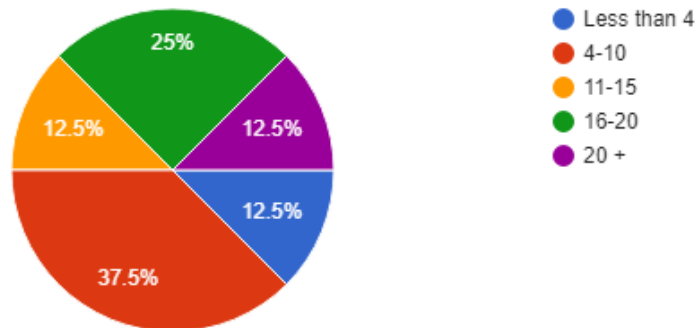
The survey was given to teachers in the spring of 2018. The survey results represent the beliefs of the entire department of eight staff members. When asked about their current position:

- Two teachers described themselves as cycle teachers
- One teacher described herself as early childhood education teacher
- One teacher described herself as fashion design teacher
- One teacher described herself as a culinary arts teacher
- One teacher described herself as life skills teacher
- One teacher described herself as both as life skills and as a culinary arts teacher
- One teacher described herself as both as early childhood education and as a culinary arts teacher.

Teachers were asked about their years of experience in teaching FCS courses. The results indicated that 50% had more than eleven years of experience.

### Which category best describes your years of teaching?

8 responses



This experience was complemented by the fact that, in addition, 50% had four or more years in the private business sector in related fields. These fields include:

- Editorial and corporate test kitchen experience
- Executive Chef
- Foodservice Director
- Fashion Design Degree and work experience
- Freelance food consultant recipe development experience
- Pastry Chef
- Restaurant Manager
- Retailer Nordstrom
- Worked for designers in New York City

### **Review of Curriculum (Grades 7 – 12)**

The FCS program begins in grade 7 through a cycle program design. The students are introduced to the world of FCS through the Textile and Design cycle. In BRMS, students are exposed to a variety of courses that are designed to spur their interests and introduce them to diverse subject matter. These cycles include FCS, Technology/Computers, Industrial Technology, Art, and Music.

As the students enter the BRRHS, the FCS Department becomes a completely elective program. For a complete list of course offerings, please see [Appendix A](#).

Although the high school program is elective, there are some graduation requirements that can be fulfilled by taking certain FCS courses. Students are required to take one year (5 credits) in 21st Century Life and Careers, or Career-Technical Education. The courses in the FCS Department that meet these requirements are as follows:



Applied Culinary Arts I, II	Fashion Design I, II, III
The Art of Applied Nutrition	Today's Living
Family and Child I, II	

For a complete list of courses that meet the five-credit graduation requirement in 21st Century Life and Careers, or Career-Technical Education, please see [Appendix F](#).

In addition to the above requirements, students are required to take one half year (2.5 credits) in the area of Financial, Economic, Business, and Entrepreneurial Literacy. The courses in the FCS Department that meet these requirements are as follows:

Today's Living	
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For a complete list of courses that meet the two and half credit graduation requirement in 21st Century Life and Careers, or Career-Technical Education, please see [Appendix G](#).

The New Jersey Department of Education (NJDOE) has replaced the New Jersey Core Curriculum Content Standards (NJCCCS) Standard 9 with the updated New Jersey Student Learning Standards (NJSLS) Standard 9. The NJSLS describes what students should know and be able to do upon completion of a thirteen-year public school education. The NJSLS for 21<sup>st</sup> Century Life and Careers and Technology were updated by the NJDOE in 2014.

It should be noted the only the program in BRMS meets the NJSLS standards, because the curriculum was written in 2017. No high school FCS courses aligns to the most current NJSLS.

Standard 9 establishes clear guidelines for what students need to know and be able to do in order to be successful in their future careers and to achieve financial independence. It is composed of the Career Ready Practices and Student Learning Standards 9.1, 9.2, and 9.3 which are outlined below:

- **The 12 Career Ready Practices**

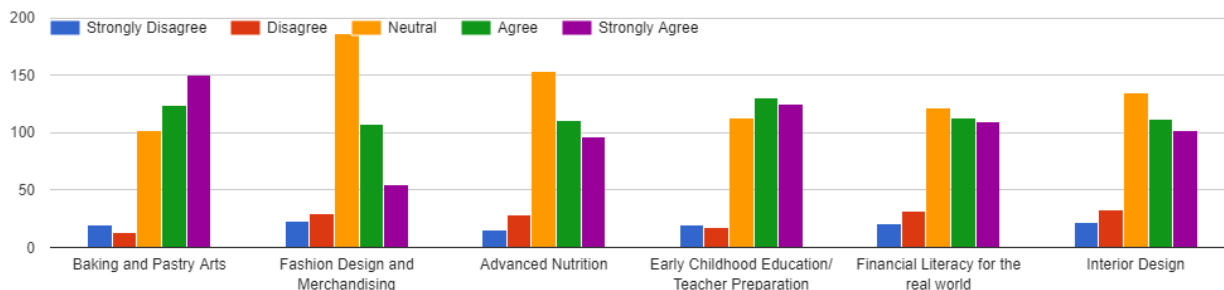
Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.

- CRP7. Employ valid and reliable research strategies.
  - CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
  - CRP9. Model integrity, ethical leadership and effective management.
  - CRP10. Plan education and career paths aligned to personal goals.
  - CRP11. Use technology to enhance productivity.
  - CRP12. Work productively in teams while using cultural global competence.
- **9.1 Personal Financial Literacy**  
This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially secure, and successful careers.
  - **9.2 Career Awareness, Exploration, and Preparation**  
This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.
  - **9.3 Career and Technical Education**  
This standard outlines what students should know and be able to do upon completion of a CTE Program of Study.

When surveyed the students responded with 82.7% agreed or strongly agreed that FCS classes are relevant in their lives. The current curriculum in the departments appears to be meeting the needs of our students, as evidenced by the fact 74.6% agreed or strongly agreed that they “use the skills and knowledge that (they) learned in my FCS classes.” In addition, 66.7% agreed or strongly agreed that they “have shared what (they) have learned in FCS classes with family or a friend.” This is a result of the fact that the curriculum does not represent the instruction that is occurring in the classroom. However, when surveyed the students indicated that they would like to have additional curricular offerings in the area of FCS.

I wish the FCS Department to offer a courses in the following related areas:



In addition, the students would like for the department to create a certificate program. A certificate program would acknowledge that a student has focused in a particular area of the FCS program.

### **Review of Instruction**

FCS courses in the middle school are part of a cycle program and are taught for a 7-week block of time in 40-minute periods. At the high school, FCS courses are taught in 40- or 41-minute periods over a semester or year depending on the course. Teachers employ a variety of teaching strategies, such as:

- Debate
- Group Projects
- Hands-on Activities
- Problem-solving
- Small Group Instruction
- Teacher-led Instruction
- Whole Class Discussion

Based on the teacher surveys, teachers report on the professional practices and teaching techniques that they use in their instruction, which is verified based on supervisory review of lesson plans. However, overwhelmingly the main forms of instruction are hands-on activities (labs). The hands-on activities allow the students to work in an environment that emulates the real world. In addition, these types of activities allow the students to build skills, confidence, and education needed to adapt to a changing professional environment, to continue to engage in lifelong learning, and to contribute value to their workplace and community.

When the students were asked about the types of instruction they would like to experience, they were much more balanced in their responses. This indicates that they would prefer larger variety of instructional methods. However, hands-on activities was something that they would like to see on a daily basis, which leads one to conclude that this is the reason students take FCS classes.

### **Review of Assessment**

Currently in the middle school, the two FCS teachers teach both the grade 7 and 8 cycle classes. The teachers readily share assessments, including lab sheets, assignments, and rubrics. This results in the outcome that all students will share a common experience regardless of the teacher to whom a student was assigned. However, no common assessments have been developed for the BRMS program.

Currently at the high school level, assessments are primarily teacher-developed, which is shared amongst the teachers that teach different sections of the same course. The midterms and final exams are 90% identical with the teachers having the ability to focus the remaining 10% on special areas of focus. The majority of assessments are hands-on, problem-based simulations. This results in the outcome that all students will share a common experience regardless of the teacher to whom a student was assigned. However, no common assessments have been developed for the BRHS program.

When asked about assessment, 86% of the students indicated, “The assigned tests, projects, and activities are designed to reinforce the learning that occurs in the FCS classes.” In addition, 100% of the teachers agreed or strongly agreed, “The assigned tests, projects, and activities in the FCS classes are challenging to students, but are fair.” When asked, “What do you believe are the necessary components of a fair and accurate assessment of student learning?” teachers responded with the following:

- Acknowledgement of individual student learning capabilities.
- Assessments should be based on information presented to the students using one or more teaching technique and the opportunity for the students to apply this information in a lab or real-life setting.
- Clear and concise instruction and expectations.
- I believe that an assessment needs to be relevant, remain up-to-date and consistent with new course materials, hands-on, problem based, and provide plenty of time to practice the skills students are to be assessed on.
- Observation in class, class discussions, orally reviewing assignments, lab participation, monitoring individual and group lab performance, quizzes.
- Reliable, practical, fair and useful to the students.

When the teachers’ results are compared to the students’ results, the students overwhelmingly agree or strongly agree with the teachers’ understanding about assessment and the way it is implemented in the FCS Program. It was found that 90.9% of the students agreed or strongly agreed that “The assigned tests, projects, and activities in the FCS classes are challenging to students, but are fair.”

### **Review of Resources**

The teachers were split on their opinions on the importance of Curricular Resources. However, 50% of the teachers agreed or strongly agreed, “I believe that curricular resources (e.g., textbooks, workbooks, internet based, computer simulations) are up-to-date and meet my classroom/student needs.”

The results are dependent on whether a teacher taught with a textbook or taught a computer-based FCS course. The overwhelming feedback in the survey indicated that the age of the textbooks was a problem.

In addition to the closed-ended response, the teachers were given the opportunity to have an open-ended response as to what resources they would like to see in other areas. Their responses were as follows:

- I do not have any computers in my classroom for student use and the Chromebook/laptop carts are difficult to gain access to.
- More up to date textbook or e-books would be beneficial; use of online resources is substantial
- My classroom is deficient in that I am not provided with a printer with ink for recipes, etc. This should not have to be supplied by me.
- Software programs would enhance fashion design and housing. Computer simulations would enhance Today's Living.
- The ability to have Chromebook has helped greatly in improving classroom resources. It allows for research, group projects, and project/problem based learning to occur. The students find the access to technology very useful and take advantage of that resource on a daily basis. As a teacher, I am able to utilize them to have students complete simulations, research projects, and help them prepare documents that they will need for in the near future.
- Updated textbooks
- We do not have updated texts or workbooks.

For a complete list of textbooks used in the FCS Department that includes the copyright date, please see [Appendix H](#).

When surveyed the teachers indicated that the courses are not dependent on textbooks. They primarily use teacher created materials, as was stated above. If they do use textbooks, it is primarily used as a reference material for a specific example.

Due to the age of the textbooks, the teachers have developed supplemental resources that allow the students to learn and meet the learning objectives. The students did not note a significant a problem with the departmental resources. Of the students who responded to the survey, 58% agreed or strongly agreed that the curricular resources are up-to-date and meet their needs.

As for technology resources, all of the FCS classrooms in grades 9 - 12 have a Chromebook cart permanently stationed in the room. Four classrooms have a smaller Chromebook cart with 16 Chromebooks and one classroom has a full Chromebook cart containing 30 Chromebooks. Although 16 Chromebooks is not enough Chromebooks for a full class to use, the teachers have adapted to share a cart or pair the students in their classes. These teaching strategies appear to be working. As evident by the survey, the students appear to be satisfied with the technology resources in the FCS Department. Of the students that responded to the survey, 74.9% agreed or

strongly agreed that the technology resources are up-to-date and meet their needs.

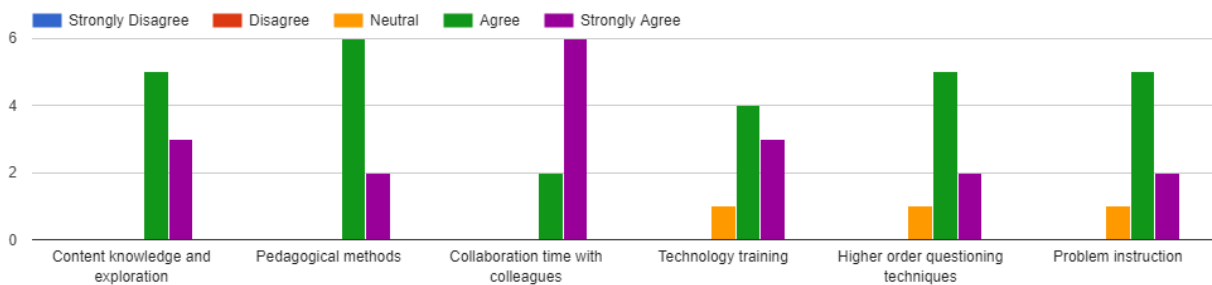
### **Review of Professional Development**

The survey of faculty in the area of Professional Development focused on two major areas of focus. The areas were technology related professional development and curricular professional development.

In area of technology professional development, the teachers are looking for lower-level technology education. This is a result of the fact that 87.5% of teachers consider themselves “Average Technology Users.”

The teachers indicated that they want to self-select and choose professional development that is tailored to their needs. This lends itself to the fact that teachers want variety and choice in their own professional development.

Professional development should include the following:



In addition to the closed-ended response, the teachers were given the opportunity to have an open-ended response as to what professional development they would like to see in other areas. Their responses were as follows:

- Content specific education. For instance, time for meetings, speakers or seminars on culinary specific content such as current trends, cuisines, etc.
- I would like a workshop about teaching special needs students in a regular education classroom.
- I would like to have more time to observe colleagues teaching. I think it is important to understand what other teachers do in their classrooms so that we can collaborate and learn new tricks and techniques from one another. My students frequently come to me discussing what they do/don't do in other classes and it would be nice to experience it from an observer's perspective.
- Knowledge on mental health issues at the high school level.
- Teaching and accommodating special needs students in our content area.
- Technology training that is currently in use by individuals. Training in an application that is not currently in practice is useless, because the knowledge learned it is not fully retained.

## Comparison Programs

As part of this program review, research of comparison programs, including school visits to other districts, were conducted. The size of district, as well as district performance, were considered when selecting districts for comparison. The program review committee reviewed the data from several school districts using websites to examine curriculum, pacing, and performance. Using this information, charts were created to examine what the FCS programs entailed and where further exploration could occur. This process was deemed positive and beneficial to members of the teams. The opportunity to engage in professional dialogue regarding instructional practices and curricular programming with teachers from other districts was rewarding. The teams were grateful to the people who allowed a team to visit and observe their practices as a way to examine our own.

BRRHS was compared to ten other high schools with similar characteristics, such as student population, socioeconomic status, and district configurations. The data tables contained in appendices were assembled in order to give a perspective of BRRHS when viewed against our comparison counterparts. These tables contained in the appendices utilize specific data points for each high school as compared to BRRHS. The data was collected by committee members through the review of districts’ websites, program of studies, and curricular documents.

For a complete list of vital data for comparison districts measured against BRRSD, please see [Appendix I](#).

For a complete list of SAT data for comparison districts measured against BRRSD, please see [Appendix J](#).

For a complete list of course offerings in BRRSD compared to like districts, please see [Appendix K](#).

For a complete list of course offered in like districts, but not offered in BRRSD, please see [Appendix L](#).

As a result of the comparison of districts, the Program Evaluation Committee sent a team to visit Watchung Hills Regional High School and Hunterdon Central Regional High School. This decision was made because of the like-nature of the districts as well as the review of programs of study. In addition, both districts had course offerings that were identified as an area of interest through the program evaluation surveys.

School District	County	District Factor Group	District Spending Per Pupil	# of Students
BRRHS	Somerset	I	\$17,080	2,882
Hunterdon Central Regional High School	Hunterdon	I	\$21,700	3,043

Watchung Hill Regional High School	Somerset	I	\$18,321	2,205
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### Overall Student Performance Analysis

In grades 7 through 12, students are given similar hands-on projects and assessments (90% identical and 10% teacher specific). However, due to the fact that the department has not utilized common assessments as well as a data management software program has lent itself to the department’s inability to analyze student performance over time. This factor has resulted in the outcome that all students will share a common experience regardless of the teacher to whom they are assigned, but has resulted in the fact that overall student performance cannot be analyzed over time

### Recommendations

#### Curriculum

As we reviewed the curriculum as part of the program evaluation process it was noted that all of the curriculum in the FCS Department from grades 7 through 12 needs to be rewritten, revised and updated. Although the curriculum in grade 7 and grade 8 was updated in September of 2017 and meets current NJSLs and best practices, there have been weaknesses that have been identified that need to be addressed. However, the curriculum in grade 9 through grade 12 needs to be totally revised as a result of the age of each of the curriculum. The NJSLs for 21<sup>st</sup> Century Life and Careers and Technology were updated in 2014 and the National Association of State Administrators of Family and Consumer Sciences (NASAFACS) standards which were updated in 2018. In addition, during the district-wide upload to our curriculum management program it was determined that the FCS Department would not upload awaiting the outcome of this program evaluation. As a result, the FCS curriculum needs to align to current standards and best practices as well as be upload to a curriculum management program.

The recommendations for Curriculum and Instruction are below:

<b>Courses</b>	<b>Number of Teachers @ Number of Days</b>	<b>Number of Days (total)</b>
FCS Cycle – Textile and Design	1 Teacher @ 2 Days	2
FCS Cycle – Food and Nutrition	1 Teacher @ 2 Days	2



Applied Culinary Arts I *	1 Teacher @ 3 Days	3
Applied Culinary Arts II *	1 Teacher @ 3 Days	3
The Art of Applied Nutrition *	1 Teacher @ 3 Days	3
Family and Child I	1 Teacher @ 3 Days	3
Family and Child II *	1 Teacher @ 3 Days	3
Fashion Design I	1 Teacher @ 3 Days	5
Fashion Design II	1 Teacher @ 3 Days	5
Fashion Design III	1 Teacher @ 3 Days	3
Introduction to Culinary Arts	2 Teachers @ 2 Days each	4
Space and Design	1 Teacher @ 3 Days	3
Today's Living	1 Teacher @ 3 Days	3
Total for Curriculum Revisions		42 Days
Total Cost for Curriculum (\$300 per day)		\$12,600

\* - Names of these courses will be change pending BOE Approval

Through the site visits, student surveys, and enrollment trends, it was determined that the FCS Program is need of some changes. Student survey enrollment trends indicate that students have a strong interest in certain areas while enrollment trends demonstrate a lack of interest in other areas. The changes that are being recommended:

#### Additions to Program of Study

- FCS (Grade 7) – Fashion Design and Household Budgeting
- Baking and Pastry Art

#### Elimination of Courses from Program of Study

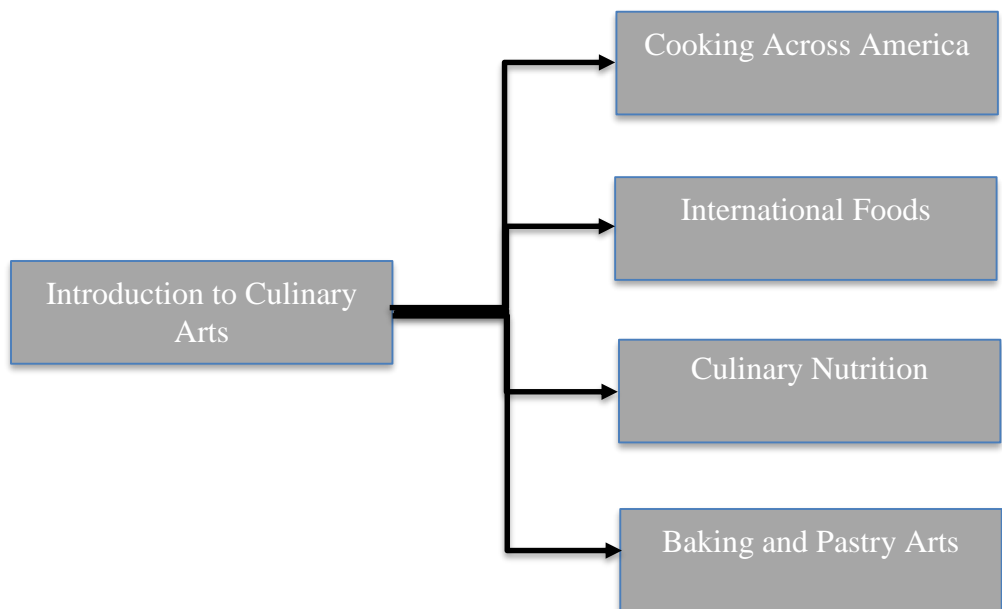
- FCS (Grade 7) – Textile and Design
- Family and Consumer Sciences Class

In addition, the following recommendations are being made to course names to represent better the curriculum being offered in the course.

- Course name changes – Culinary Art
  - Applied Culinary Arts I to Cooking Across America
  - Applied Culinary Arts II to International Foods
  - The Art of Applied Nutrition to Culinary Nutrition

- Course name changes – Fashion Design
  - Fashion Design I to Sewing Concepts
  - Fashion Design II to Design and Sewing Techniques
  - Fashion Design III to Fashion and Creative Design
- Course name changes – Other
  - Family and Child II to Early Childhood Education
  - Space and Design to Home and Interior Design

The final program recommendation to change the prerequisites in the culinary arts area. The program evaluation committee is recommending that the only prerequisite for all culinary arts classes is Introduction to Culinary Arts. This change would allow for the students to have more diverse selection of courses to meet their needs. The course of study would look as follows:



Course Title	Grades	Credits	Description
Bakery and Pastry Arts	9-12	2.5	This course allows students to delve deeper into their exploration of the components of Baking and Pastry Arts developed in Introduction to Culinary Arts. Laboratory experiences will place a stronger emphasis on creation, design, presentation and analysis. Students will begin a more detailed exploration of ingredients used in baking and their function in producing a vast array of baked products. The importance of weights and

		measures will be stressed along with recipe comprehension and interpretation. Students will study great chefs of the world and their influences on the foods we eat. This course allows students to more freely develop their own creative interest within the baking and pastry arts industry.  Prerequisite: Introduction to Culinary Arts
Cost:	2 Teachers @ 3 Days (\$300 per day / per teacher)	Total Cost: \$1,800

Finally, the FCS department is recommending that an Academic Achievement Certification Program be developed. The Academic Achievement Certificate Program is designed to provide a list of the knowledge that a student has acquired in a certain area of study. Each certificate will list the area of concentration and the courses taken. The certificate will be signed by the Principal and the department supervisor and will be suitable for college and portfolios. By successful the necessary courses a student in the areas would demonstrate a sustained interest in the areas in which they focused. To receive a certificate the student must achieve a grade of “C” or better in the courses associated with the following areas:

- Culinary Arts
- Fashion Design
- General Family and Consumer Sciences

**Assessments**

The assessments need to be align to demonstrate attainment and retention of the 2014 NJSLs. In addition, through department meetings and professional development, the teachers will continue to align to common assessments amongst classes taught by different teachers. This is an ongoing process and will be something that needs to be verified on a yearly basis to ensure that all assessments are meeting our targeted learning outcomes.

Not only do the assessments need to align to the current NJSLs, the department needs to develop common assessments that are utilized in all sections of a particular class. This practice will ensure that the students are prepared equally, no matter which teacher or section they are assigned. Through common assessments, we will ensure that all students have met the required course learning objectives.

Finally, the department is committed to moving all major assessments, whether it be exams or simulations, to a data management system. Data management programs that collect and analyze data will allow our department to identify and track trends within the assessment as well as across various classes. In addition, it will allow the department to identify trends over time.

### **Resources and Technology**

Being that the FCS is dependent on equipment and facilities, the majority of the recommendations to the department will focus in this area. In addition, it should be noted that the facilities in the culinary arts area are in particular need of upgrade due to the age of the facilities and new health and food safety standards. All three kitchens, one in the middle school and two at the high school are in excess of 20 years old.

#### Upgrades to all three kitchens

Items	Rationale	Approximate cost
Replace counters with stainless steel counter tops	Stainless steel is a nonporous that allows for proper cleaning	Roughly 432 Square feet \$50 - \$100/Square feet = Approximately - \$21,600 to \$43,200
Replace broken and damaged doors	The cabinet doors can no longer being repaired	\$10,000
Commercial Full Refrigerators	Refrigerators intended for home use do not cool large quantities of food in a timely manner	6 @ \$2,000 = \$12,000
Commercial Full Freezer	Refrigerators intended for home use do not cool large quantities of food in a timely manner	3 @ \$2,000 = \$6,000
Stainless Steel Demonstration Table	Stainless steel is a nonporous that allows for proper cleaning	3 @ \$3,000 = \$9,000

#### Upgrades to two high school kitchens only

Items	Rationale	Approximate cost
Stainless Steel Work Utility Tables to replace current classroom tables	Stainless steel is a nonporous that allows for proper cleaning. In addition, these tables are on wheels, which will allow for flexibility of instruction.	12 @ \$300 = \$3,600
Stools	Necessary to work at the stainless steel work tables	48 @ \$80 = \$3,840
Stainless Steel Storage Cabinets	Stainless steel is a nonporous that allows for proper cleaning.	4 @ \$500 = \$2,000
Overhead Demonstration Camera	This will allow teachers to use the LCD projector to demonstrate proper technique	3 @ \$2,000 = \$6,000
Ventilation Hoods vented to outside	The current ventilation units only vent smoke away from	\$10,000

	stove, but back into the room. They do not clear smoke or smells from the room and building.	
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**Technology**

The FCS Department is not dependent upon traditional technology, but they do have need for technology to support the various programs. The following upgrades would allow for more flexibility of instruction that better support all learner from struggling through advanced.

Technology Upgrades:

Items	Rationale	Approximate cost
Laptop Cart – 2026	Today’s Living course relies heavily on internet access. An update, dedicated laptop cart would allow for improved instructional outcomes	\$20,000
Color laser printers	In order to research, produce instructional materials, patterns, and recipes	3 @ \$1,500 = \$4,500

**Staffing**

No anticipated change in current staffing levels are anticipated at this time. However, staffing will continually evaluated on a year-by-year basis and adjusted accordingly.

**Professional Development**

Effective professional development enables educators to develop the knowledge and skills they need to address students' learning challenges. Sound professional development will help teachers with teacher retention, deeper subject matter knowledge, and develops a collaborative environment, which ultimately leads to better student achievement. As a result, a plan will be developed that will:

- Provide ongoing, targeted professional development for staff
  - Fashion design
  - Culinary arts
  - Early childhood education
  - Life skills
- Develop knowledge and skills teachers need to address students’ learning challenges
  - Special Education
  - Students with special needs

- Improve education efficiency
  - Developing the program
  - Raising awareness
- Build confidence in staff
  - Improving and expanding teachers skills and abilities
  - Diverse learning strategies
- Encourage, inspire, and reenergize staff
  - Improve morale of staff

### Proposed Program Plan Timeline

	<u>2018-19</u>	<u>2019-20</u>	<u>2020-21</u>	<u>2021-22</u>	<u>2022-23</u>
	Program Review	Pilot and Resources	Implementation	Implementation	Implementation and Review
Programs / Courses	Assess current program	Create and propose new courses to the Board of Education	Provide Professional Development	Provide Professional Development	Review and assess
Curriculum	Assess current curriculum in all courses	Writing and revision of courses	Provide Professional Development in curriculum and instruction	Examine assessment and student learning. Make updates based on feedback	Examine assessment and student learning. Make updates based on feedback
Resource / Technology	Assess current resources / technology and develop a list of recommended resources and purchase for pilots	Purchase recommended materials and pilot their integration	Implement the resources in all classes	Assess current and ongoing use of resources / technology	Assess current and ongoing use of resources / technology
Staffing	Assess current staffing numbers with course	Assess current staffing numbers with course Assess current numbers to make determination about staffing needs			

## APPENDIX A

### Course Offerings

Course Title	Grade Level(s)	Weeks /Semester/ Year	Curriculum Approved
FCS Cycle – Textile and Design	7	7 Weeks	September 2017
FCS Cycle – Food and Nutrition	8	7 Weeks	September 2017
Applied Culinary Arts I	9-12	Semester	September 2001
Applied Culinary Arts II	9-12	Semester	September 2001
The Art of Applied Nutrition	9-12	Semester	September 2007
Family and Child I	11-12	Semester	September 2005
Family and Child II	spring of 11 or 12	Semester	September 2006
FCS	9-12	Semester	September 2007
Fashion Design I	9-12	Semester	September 2001
Fashion Design II	9-12	Semester	September 2005
Fashion Design III	10-12	Semester	September 2006
Introduction to Culinary Arts	9-12	Semester	September 2005
Space and Design	11-12	Semester	September 2003
Today's Living	12	Full Year	September 2007
Special Education FCS	9-12	Semester	September 2002



## APPENDIX B

### Three Year: Course Enrollment Trends

Course	School	2015-2016		2016-2017		2017-2018	
		Total Students	Avg. Class Size	Total Students	Avg. Class Size	Total Students	Avg. Class Size
Textiles and Design	BRMS	N/A	N/A	141	23.5	132	22
Foods and Nutrition	BRMS	N/A	N/A	140	23.33	144	24
Applied Culinary Arts I A	BRHS	24	24	60	22	63	21
Applied Culinary Arts II A	BRHS	14	7	35	17.5	26	13
Applied Nutrition A	BRHS	39	19.5	34	17	18	18
Family and Child A	BRHS	44	22	120	20	100	20
Family and Child II A	BRHS	95	19	77	19.25	53	17.67
Fashion Design I A	BRHS	40	20	63	21	60	20
Fashion Design II A	BRHS	23	23	27	16	21	10.5
Fashion Design III A	BRHS	27	13.5	15	7.5	N/A	N/A
Intro to Culinary Arts A	BRHS	112	22.4	132	22.8	214	22.22
Space and Design A	BRHS	N/A	N/A	N/A	N/A	7	7
Today's Living A	BRHS	179	22.38	181	22.63	157	22.43

N/A – Indicates that the course did not run during that particular school year. \

## APPENDIX C

### Three Year: Grading Trends

Course	School	2015-2016	2016-2017	2017-2018
Textiles and Design	BRMS	N/A	96.87%	94.23%
Foods and Nutrition	BRMS	N/A	97.10%	98.57%
Applied Culinary Arts I A	BRHS	86.94%	86.88%	82.90%
Applied Culinary Arts II A	BRHS	84.13%	85.64%	86.08%
Applied Nutrition A	BRHS	88.06%	87.36%	90.05%
Family and Child A	BRHS	88.55%	89.58%	92.82%
Family and Child II A	BRHS	88.63%	87.50%	90.40%
Fashion Design I A	BRHS	89.84%	88.69%	85.85%
Fashion Design II A	BRHS	91.27%	89.52%	94.24%
Fashion Design III A	BRHS	94.23%	92.63%	0.00%
Intro to Culinary Arts A	BRHS	87.87%	88.95%	91.18%
Space and Design A	BRHS	N/A	N/A	82.50%
Today's Living A	BRHS	78.85%	89.26%	89.83%

N/A – Indicates that the course did not run during that particular school year.

**APPENDIX D**

**Three Year: Enrollment Trends by Gender**

<b>Course Name</b>	<b>School</b>	<b>Total Enrollment</b>	<b>Males</b>	<b>Females</b>
Textiles and Design	BRMS	390	186	204
Foods and Nutrition	BRMS	432	213	219
Applied Culinary Arts I A	BRHS	252	104	148
Applied Culinary Arts II A	BRHS	104	56	48
Applied Nutrition A	BRHS	72	24	48
Family and Child A	BRHS	152	28	124
Family and Child II A	BRHS	212	12	200
Fashion Design II A	BRHS	84	8	76
Intro to Culinary Arts A	BRHS	800	360	440
Space and Design A	BRHS	28	0	28
Today's Living A	BRHS	517	234	283

## APPENDIX E

### **Program Evaluation - Guiding Questions**

- What is our vision for the Family and Consumer Science program?
- How does/could our program support improving student achievement?
- What standards can we compare our program with to determine effectiveness?
- How has our program been impacted by technology?
- How effective is our current model of the required middle school program and elective high school program? How can it be made more effective?
- How does our program compare to programs in other schools?
- What is practical application in home of the skills and knowledge learned in our program?

## APPENDIX F

### **Complete list of courses that meet 21st Century Life and Careers, or Career-Technical Education Graduation Requirements:**

Academic Intern Program	Fashion Design I, II, III
Accounting I, II	Financial Planning
Advanced Photo Editing for Business	Fundamentals of Automated Design
Advanced Programming for Business	Home Improvement
AP Computer Science A	Introduction to Culinary Arts
AP Computer Science Principles	International Business
Applied Culinary Arts I, II	Introduction to Computer Science
The Art of Applied Nutrition	Introduction to Electronics
Business Law	Introduction to Marketing
Business: An Introduction	Keyboarding
Career Exploration and Awareness	AP Microeconomics
College Preparatory Accounting	AP Macroeconomics
Computer Aided Design Technology I, II	Media Communications I, II, III, IV
Computer Applications	Multimedia Technology and Business Presentations
Computer Repair and Technology Support I, II	Notetaking and Study Skills
Desktop Publishing	Photo Editing and Web Design
Electronics	Programming for Business
Engineering Computer Graphic I, II	Space and Design
Family and Child I, II	Today's Living
FCS	Wood Design and Fabrication I, II, III
All Programs of Study at Somerset County Vocational Technical School	

## APPENDIX G

### **Complete list of courses that meet Financial, Economic, Business, and Entrepreneurial Literacy Graduation Requirements.**

Accounting I	Economics Today
AP Microeconomics	Financial Planning
AP Macroeconomics	Today's Living
Business: An Introduction	

## APPENDIX H

### Textbook list used in the FCS Department

Textbook list used in the FCS Department
Married and the Single Life Author: Riker and Brisbane Publisher: Glencoe/McGraw-Hill Copyright: 1999
Parenting: Rewards and Responsibilities Author: Hildebrand Publisher: Glencoe/McGraw-Hill Copyright: 2000
Skills for Personal and Family Living Author: Parnell and Wooton Publisher: Goodheart-Wilcox Copyright: 2004
Guide to Good Food Author: Reynolds and Bence Publisher: Goodheart-Wilcox Copyright: 2004
Working with Young Children Author: Herr Publisher: Goodheart-Wilcox Copyright: 2016
Nutrition and Wellness Author: Hasler Publisher: Glencoe/McGraw-Hill Copyright: 1999
Contemporary Living Author: Ryder and Harter Publisher: Goodheart-Wilcox Copyright: 2005

## APPENDIX I

### District Comparison Charts

<b>Comparison Data</b>	Total number of students in grades 9-12	District Factor Grouping (DFG)	Student / Teacher Ratio	District Spending per Pupil	Free and Reduced Lunch Percentage	Percentage continuing Post-Secondary Education	Graduation percentage
<b>BRRHS</b>	<b>2,882</b>	<b>I</b>	<b>12:1</b>	<b>\$17,080</b>	<b>7%</b>	<b>94%</b>	<b>95%</b>
Bernards	843	J	13:1	\$19,611	8%	93%	100%
East Brunswick (Grades 10-12)	2,188	I	13:1	\$18,897	4%	96%	100%
Edison Township	1,908	GH	12:1	\$15,737	34%	87%	95%
Hillsborough	2,290	I	12:1	\$15,829	7%	95%	98%
Hunterdon Central	3,043	I	13:1	\$21,700	6%	90%	95%
Montgomery	1,714	J	14:1	\$16,431	3%	96%	100%
Randolph	1,611	I	12:1	\$17,164	5%	94.4%	97%
South Brunswick	2,921	I	15:1	\$16,135	10%	95%	96%
Watchung Hills	2,205	I	13:1	\$18,321	1%	95%	98%
West Windsor – Plainsboro	1,497	J	12:1	\$16,507	4%	97%	99%

Information obtained through Public School Review and Self-Reported School District Profiles



**APPENDIX J**

**District Comparison SAT Information**

<b>SAT Comparison Data</b>	<b>Math</b>	<b>ERB Reading and Writing</b>	<b>SAT Total</b>
<b>BRRHS</b>	<b>603</b>	<b>592</b>	<b>1,195</b>
Bernards	597	613	1,210
East Brunswick	627	611	1,238
Edison Township	546	543	1,089
Hillsborough	618	601	1,219
Hunterdon Central	661	648	1,309
Montgomery	674	657	1,331
South Brunswick	611	602	1,213
Watchung Hills	604	608	1,212
West Windsor – Plainsboro	672	657	1,331

In formation obtained through “NJ.com: The 50 N.J. High Schools with the Best SAT Scores”

## APPENDIX K

### Comparison Chart: Course offerings in BRRSD compared to like districts

Family Consumer Science courses offered at BRRHS compared to other districts. Some courses are identical, while others are similar in nature. <b>KEY</b> X = identical or similar offering C = indicates a cycle program	Bernards (Program Eliminated)	Hillsborough	Edison Township	West Windsor - Plainsboro	Montgomery	East Brunswick (Grades 10-12)	Hunterdon Central	Watchung Hills	South Brunswick	Randolph
Family Consumer Science Grade 7 Cycle: Clothing										<b>C</b>
Family Consumer Science Grade 8 Cycle: Foods										<b>C</b>
Introduction to Culinary Arts		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>
Applied Culinary Arts I		<b>X</b>	<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Applied Culinary Arts II		<b>X</b>		<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Art of Applied Nutrition		<b>X</b>				<b>X</b>	<b>X</b>			<b>X</b>
Family and Child I		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Family and Child II				<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>
FCS										
Fashion Designer I		<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>
Fashion Designer II		<b>X</b>	<b>X</b>				<b>X</b>		<b>X</b>	<b>X</b>
Fashion Designer III				<b>X</b>			<b>X</b>			
Space and Design		<b>X</b>		<b>X</b>			<b>X</b>			
Today's Living		<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	

**APPENDIX L**

**Assessment Comparison of Courses not offered at Bridgewater Raritan**

	<b>Bernards (Program Eliminated)</b>	<b>Hillsborough</b>	<b>Edison Township</b>	<b>West Windsor - Plainsboro</b>	<b>Montgomery</b>	<b>East Brunswick (Grades 10-12)</b>	<b>Hunterdon Central</b>	<b>Watchung Hills</b>	<b>South Brunswick</b>	<b>Randolph</b>
Advanced Interior Design		<b>X</b>								
Baking		<b>X</b>								
Advanced Baking		<b>X</b>								
Fabric Creation		<b>X</b>								
Honor Field Experience in Education (10 Credits)									<b>X</b>	
Honor Field Experience in Education (5 Credits)									<b>X</b>	
Honor Field Experience in Education (2.5 Credits)									<b>X</b>	
Fashion and Textiles in the 21 <sup>st</sup> Century									<b>X</b>	
Fashion Illustration Portfolio									<b>X</b>	
Culinary Arts in the 21 <sup>st</sup> Century									<b>X</b>	
Kids in the 21 <sup>st</sup> Century									<b>X</b>	
Child Development I									<b>X</b>	

	Bernards (Program Eliminated)	Hillsborough	Edison Township	West Windsor - Plainsboro	Montgomery	East Brunswick (Grades 10-12)	Hunterdon Central	Watchung Hills	South Brunswick	Randolph
Child Development II									X	
Advanced Child Development									X	
Financial Fitness Honors			X							
Business of Fashion Honors			X							
The Art of Baking					X			X		X
Creative Cooking and Catering				X						
Culinary Art III						X				
Teaching Practicum						X				
Healthy Eating on the Go						X				
Food for Fitness						X				
Fashion Merchandising and Retailing						X		X		

	Bernards (Program Eliminated)	Hillsborough	Edison Township	West Windsor - Plainsboro	Montgomery	East Brunswick (Grades 10-12)	Hunterdon Central	Watchung Hills	South Brunswick	Randolph
Child Development III								X		
Restaurant Management										X
Common Sense Finance								X		
Convenience Food								X		
Early Childhood Development								X		
Culinary Art III						X				
Healthy Eating on the Go							X			